

**UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF NEW YORK**

	X	
	:	
UNI-SYSTEMS, LLC,	:	
	:	
Plaintiff,	:	
	:	Case No. 1:17-cv-00147-KAM-CLP
v.	:	
	:	
UNITED STATES TENNIS	:	<b>DEFENDANTS’ JOINT LOC. PAT. R.</b>
ASSOCIATION, INC., ROSSETTI INC.,	:	<b>12(b) RESPONSE BRIEF</b>
HUNT CONSTRUCTION GROUP, INC.,	:	<b>REGARDING CLAIM</b>
HARDESTY & HANOVER, LLC,	:	<b>CONSTRUCTION</b>
HARDESTY & HANOVER, LLP,	:	
MORGAN ENGINEERING SYSTEMS,	:	
INC., and GEIGER ENGINEERS, P.C.,	:	
	:	
Defendants.	:	
	:	
	X	

Pursuant to Local Patent Rule 12(b), Defendants United States Tennis Association, Inc., Rossetti, Inc., Hunt Construction Group, Inc., Hardesty & Hanover, LLC, Hardesty & Hanover, LLP, Morgan Engineering Systems, Inc., and Geiger Engineer, P.C. (collectively, “Defendants”), by and through the undersigned counsel, hereby respectfully submit their joint response to Plaintiff Uni-Systems, LLC’s (“Plaintiff” or “Uni-Systems”) LPR 12(a) Opening Claim Construction Brief (ECF No. 259, “Br.”) as to U.S. Patent Nos. 6,789,360 (the “’9360 Patent”) and 7,594,360 (the “’4360 Patent”). In support, Defendants also submit the Declaration of Timothy Lack (“Lack Decl.”) as Ex. 1 and his CV as Ex. 2.

**TABLE OF CONTENTS**

	<b><u>Page</u></b>
I. INTRODUCTION .....	1
II. LEGAL STANDARDS. ....	2
III. ARGUMENT.....	3
A. Level of Skill in the Art. ....	3
B. '9360 Patent. ....	4
i. "Tied arch" and "to assume most gravity-induced stress.".....	4
a. The intrinsic record compels Defendants' construction of "tied arch." .....	4
(a) The claim language and specification preclude the substantial inclusion of diagonal elements. ....	4
(b) Plaintiff's arguments are legally and factually flawed.....	7
(c) The prosecution history confirms the meaning provided by the specification. ....	11
b. The Court should adopt Defendants' construction of "to assume most gravity[-]induced stress." .....	14
ii. "Retention mechanism," "retention element," and "preventing said roof member from being lifted upwardly . . . ." .....	15
a. "Retention mechanism" and "retention element" should be construed as means-plus-function limitations.....	15
b. Defendants' constructions align with the structures identified in the specification.....	17
c. "Preventing said roof member from being lifted upwardly . . ." should be construed based on the surrounding claim language and the specification. ....	20
C. '4360 Patent. ....	24
i. "Large overhead structural member" / "large, heavy roof movable panel" (Claims 1, 14, 21). ....	24
a. The intrinsic evidence supports Defendants' construction. ....	24
b. The prosecution history confirms Defendants' construction. ....	25
c. Plaintiff misplaces its reliance on extrinsic evidence. ....	26
d. Claims 14, 21: "large, heavy roof movable panel." .....	27
ii. "Stable movement." .....	27
a. The preamble is limiting. ....	27
b. "Stable movement" is indefinite. ....	30
(a) The law of indefiniteness supports Defendants' proposed construction. ....	30
(b) The intrinsic evidence does not explain the term "stable movement." .....	31
(c) The extrinsic evidence does not explain the term "stable movement." .....	34
iii. "On the large overhead structural member." .....	35

iv.	“A lateral release mechanism for each of said transport mechanism.” .....	36
a.	The intrinsic evidence supports Defendants’ position. ....	37
b.	Plaintiff must be held to the plain language of its claims. ....	41
v.	“Interposed between.” .....	42
a.	Defendants’ construction is supported by the intrinsic evidence. ....	43
b.	Plaintiff mistakenly focuses only on extrinsic evidence. ....	46
vi.	“Limited amount of movement.” .....	47
a.	The intrinsic evidence does not define the term. ....	48
b.	Plaintiff’s extrinsic evidence is unavailing. ....	48
vii.	“Very small side load.” .....	51
a.	The intrinsic evidence does not define “very small side load.” .....	51
b.	Plaintiff’s position is not supported. ....	53
viii.	“No need for additional lateral reinforcement.” .....	56
a.	The prosecution history supports Defendants’ construction. ....	56
b.	Plaintiff again mistakenly relies on extrinsic evidence. ....	57
IV.	CONCLUSION.....	57

**TABLE OF AUTHORITIES**

	<b>Page(s)</b>
<b>CASES</b>	
<i>Acco Brands, Inc. v. Micro Sec. Devices, Inc.</i> , 346 F.3d 1075 (Fed. Cir. 2003).....	40
<i>Am. Med. Sys., Inc. v. Biolitec, Inc.</i> , 618 F.3d 1354 (Fed. Cir. 2010).....	28
<i>Applied Materials, Inc. v. Advanced Semiconductor Materials Am., Inc.</i> , 98 F.3d 1563 (Fed. Cir. 1996).....	28
<i>Applied Med. Res. Corp. v. U.S. Surgical Corp.</i> , 448 F.3d 1324 (Fed. Cir. 2006).....	17
<i>Avenue Innovations, Inc. v. E. Mishan &amp; Sons, Inc.</i> , No. 1:16-CV-3086-KPF, 2018 WL 3127161 (S.D.N.Y. May 11, 2018).....	50, 51
<i>Biogen Idec, Inc. v. GlaxoSmithKline LLC</i> , 713 F.3d 1090 (Fed. Cir. 2013).....	40, 41, 47
<i>Blue Calypso, Inc. v. Groupon, Inc.</i> , 93 F. Supp. 3d 575, 594 (E.D. Tex. 2015).....	29
<i>Brandt Industries, Ltd. v Harvest International Corp.</i> , No. C15-4049, 2016 WL 1452402 (N.D. Iowa 2016) .....	22
<i>Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.</i> , 296 F.3d 1106 (Fed. Cir. 2002).....	28
<i>CardSoft, LLC v. VeriFone, Inc.</i> , 807 F.3d 1346 (Fed. Cir. 2015).....	11, 19
<i>Chef America, Inc. v. Lamb-Weston Inc.</i> , 358 F.3d 1371 (Fed. Cir 2004).....	41, 42
<i>Cloud Farm Associates. v. Volkswagen Group of America</i> , 674 Fed. Appx. 1000 (Fed. Cir. 2017).....	23
<i>Digital Biometrics Inc. v. Identix, Inc.</i> , 149 F.3d 1335 (Fed. Cir. 1998).....	37
<i>Dow Chem. Co. v. Nova Chems. Corp.</i> , 803 F.3d 620 (Fed. Cir. 2015).....	30, 31, 49

<i>Eaton Corp. v. Rockwell Int’l Corp.</i> , 323 F.3d 1332 (Fed. Cir. 2003).....	24
<i>EcoServices, LLC v. Certified Aviation Services, LLC</i> , No. CV 16-01824-RSWL-SPx, 2017 WL 2783486 (C.D. Cal. May 18, 2017) .....	55, 56
<i>Edwards Lifesciences LLC v. Cook Inc.</i> , 582 F.3d 1322 (Fed. Cir. 2009).....	8, 13
<i>Elekta Instrument S.A. v. O.U.R. Scientific Int’l, Inc.</i> , 214 F.3d 1302 (Fed. Cir. 2000).....	36, 41
<i>Eon -Net LP v. Flagstar Bancorp.</i> , 653 F.3d 1314 (Fed. Cir. 2011).....	11, 19
<i>Flex-Rest LLC v. Steelcase, Inc.</i> , 455 F.3d 1351 (Fed. Cir. 2006).....	7
<i>Gen. Protecht Grp., Inc. v. Int’l Trade Comm’n</i> , 619 F.3d 1303 (Fed. Cir. 2010).....	49
<i>Georgetown Rail Equip. Co. v. Holland L.P.</i> , 867 F.3d 1229 (Fed. Cir. 2017).....	28
<i>Godo Kaisha IP Bridge I v. Broadcom Ltd.</i> , No. 2:16-CV-134-JRG-RSP, 2016 WL 6611490 (E.D. Tex. Nov. 9, 2016) .....	56
<i>Halliburton Energy Servs., Inc. v. M-I LLC</i> , 514 F.3d 1244 (Fed. Cir. 2008).....	30
<i>Howmedica Osteonics v. Wright Med. Tech.</i> , 540 F.3d 1337 (Fed. Cir. 2008).....	49
<i>Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.</i> , 381 F.3d 1111 (Fed. Cir. 2004).....	2
<i>Interval Licensing LLC v. AOL, Inc.</i> , 766 F.3d 1364 (Fed. Cir. 2014).....	31, 48
<i>Key Pharms. v. Hercon Labs. Corp.</i> , 161 F.3d 709 (Fed. Cir. 1998).....	3
<i>Koninklijke KPN N.V. v. Samsung Elecs. Co., Ltd.</i> , Nos. 2:14–CV–1165–JRG, 2:15–CV–948–JRG, 2016 WL 2610649 (E.D. Tex. May 6, 2016).....	29
<i>Laitram Corp. v. Morehouse Indus., Inc.</i> , 143 F.3d 1456 (Fed. Cir. 1998).....	14

<i>Media Rights Techs v. Capital One Fin. Corp.</i> , 800 F.3d 1366 (Fed. Cir. 2015).....	16, 20
<i>N. Am. Container, Inc. v. Plastipak Packaging, Inc.</i> , 415 F.3d 1335 (Fed. Cir. 2005).....	40
<i>Nautilus Inc. v. Biosig Instrs., Inc.</i> , 134 S. Ct. 2120 (2014).....	30, 31, 32, 33
<i>O.I. Corp. v. Tekmar Co., Inc.</i> , 115 F.3d 1576 (Fed. Cir. 1997).....	11, 19
<i>Phillips v. AWH Corp.</i> , 415 F.3d 1303 (Fed. Cir. 2005).....	passim
<i>Pitney Bowes, Inc. v. Hewlett-Packard Co.</i> , 182 F.3d 1298 (Fed. Cir. 1999).....	2, 24
<i>PODS, Inc. v. Porta Stor, Inc.</i> , 484 F.3d 1359 (Fed. Cir. 2007).....	5
<i>Process Control Corp. v. Hydrexclaim Corp.</i> , 190 F.3d 1350 (Fed. Cir. 1999).....	41
<i>Qcue, Inc. v. Digonex Technologies, Inc.</i> , No. A-12-CA-484-SS, 2013 WL 4784120 (W.D. Tex. Sept. 5, 2013), <i>aff'd</i> , 575 Fed.Appx. 895 (Fed. Cir. 2014).....	50
<i>ResQNet.com, Inc. v. Lanza, Inc.</i> , 346 F.3d 1374 (Fed. Cir. 2003).....	7
<i>Sanders v. Mount Sinai Sch. of Med.</i> , 418 F. Supp. 2d 339 (S.D.N.Y. 2005).....	53
<i>Seattle Box Co., Inc. v. Indus. Crating &amp; Packing, Inc.</i> , 731 F.2d 818 (Fed. Cir. 1984).....	48, 51
<i>Southwall Techs., Inc. v. Cardinal IG Co.</i> , 54 F.3d 1570 (Fed. Cir. 1995).....	2
<i>Speedfit LLC v. Woodway USA, Inc.</i> , No. 13-cv-1276-KAM-AKT, 2017 WL 5633113 (E.D.N.Y. Nov. 20, 2017) .....	2, 3
<i>Springs Window Fashions LP v. Novo Indus., L.P.</i> , 323 F.3d 989 (Fed. Cir. 2003).....	14
<i>Sundance, Inc. v. DeMonte Fabricating Ltd.</i> , 550 F.3d 1356 (Fed. Cir. 2008).....	54

<i>Symantec Corp. v. Computer Assocs. Int’l, Inc.</i> , 522 F.3d 1279 (Fed. Cir. 2008).....	33
<i>Thorner v. Sony Comp. Ent. Am. LLC</i> , 669 F.3d 1362 (Fed. Cir. 2012). (Br. .).....	41
<i>Tinnus Enterprises, LLC v. Telebrands Corp.</i> , No. 6:16-CV-00033-RWS, 2016 WL 7230903 (E.D. Tex. Dec. 13, 2016) .....	50
<i>Tip Systems, LLC v. Philips &amp; Brooks/Gladwin Inc.</i> , 529 F.3d 1364 (Fed. Cir. 2008).....	38
<i>TMC Fuel Injection Sys. v. Ford Motor Co.</i> , 682 Fed.Appx. 895 (Fed. Cir. 2017).....	13
<i>Trs. of Columbia Univ. v. Symantec Corp.</i> , 811 F.3d 1359 (Fed. Cir. 2016).....	47
<i>U.S. v. Russo</i> , 74 F.3d 1383 (2d Cir. 1996), <i>cert. denied</i> , 519 U.S. 927 (1996).....	54
<i>Union Oil Co. of Cal. v. Atl. Richfield Co.</i> , 208 F.3d 989 (Fed. Cir. 2000).....	7
<i>Unwired Planet LLC v. Google Inc.</i> , No. 3:12-cv-00504-MMD-VPC, 2015 WL 3378476 (D. Nev. May 26, 2015), <i>aff’d</i> , 660 Fed.Appx. 974 (Fed. Cir. 2016) .....	28
<i>Vitronics Corp. v. Conceptronic, Inc.</i> , 90 F.3d 1576 (Fed. Cir. 1996).....	2
<i>Welker Bearing Co. v. PHD, Inc.</i> , 550 F.3d 1090 (Fed. Cir. 2008).....	16, 19, 20
<i>Wi-LAN U.S.A, Inc. v. Apple Inc.</i> , 830 F.3d 1374 (Fed. Cir. 2016), <i>cert. denied</i> , 137 S.Ct. 1213, 197 L.Ed.2d 248 (2017).....	55
<i>Williamson v. Citrix Online, LLC</i> , 792 F.3d 1339 (Fed. Cir. 2015).....	16, 19, 20
<i>World Class Tech. Corp. v. Ormco Corp.</i> , 769 F.3d 1120 (Fed. Cir. 2014).....	47
<b>RULES</b>	
Fed. R. Civ. P. 26(a)(2)(B)(i).....	49
Rule 11 .....	12, 35

**STATUTES**

35 U.S.C. § 112.....	30
35 U.S.C. §112 ¶ 6.....	16, 17



**EXHIBIT INDEX**

<b><u>Exhibit Number</u></b>	<b><u>Description</u></b>
1	Declaration of Timothy Lack
2	Curriculum Vitae of Timothy Lack
3	R. Shankar Nair, <i>Buckling and Vibration of Arches and Tied Arches</i> , 112 JOURNAL OF STRUCTURAL ENGINEERING, no. 6, 1986
4	U.S. Patent No. 4,393,637
5	U.S. Patent No. 5,287,481
6	U.S. Patent No. 5,896,708
7	U.S. Patent No. 6,851,227
8	U.S. Patent No. 7,594,360 Patent File History, March 9, 2009 Amendment, bearing Bates Numbers UNI-SYSTEMS v MORGAN-FH00197– 207
9	U.S. Patent No. 6,415,556
10	U.S. Patent No. 7,854,475
11	U.S. Patent No. 6,454,286
12	U.S. Patent No. 7,594,360 Patent File History, May 29, 2009 Notice of Allowability and Examiner's Amendment, bearing Bates Numbers UNI-SYSTEMS v MORGAN-FH00218-221
13	U.S. Patent No. 7,594,360 Patent File History, March 3, 2006 Application for an invention entitled Improved Lateral Release Mechanism for Movable Roof Panels, bearing Bates Numbers UNI-SYSTEMS v MORGAN-FH00001-28
14	U.S. Patent No. 8,112,303
15	U.S. Patent No. 7,594,360 Patent File History, June 23, 2008 Amendment, bearing Bates Numbers UNI-SYSTEMS v MORGAN-FH00118– 126

## I. INTRODUCTION

Plaintiff's opening *Markman* brief repeatedly violates the core tenet of claim construction by disregarding the plain text of the patent claims and specifications, and the patents' prosecution histories, instead relying almost entirely on extrinsic evidence. Defendants' proposed constructions, on the other hand, are aligned with and amply supported by the patents' intrinsic evidence. Defendants respectfully request, therefore, that the Court adopt its proposed constructions.

Plaintiff's arguments hinge almost exclusively on the testimony of its expert Dr. Nair. Fatally, however, Dr. Nair's opinions, just like Plaintiff's arguments, fail to take into account the intrinsic evidence. Instead, Dr. Nair's opinions focus on what he believes as opposed to what the patents and prosecution histories say. Plaintiff also repeatedly argues that Defendants' constructions are trying to limit the patents to a preferred embodiment or import a limitation from the specification into the claim. But Plaintiff fails to acknowledge that given the disclosures in the patent and prosecution history, Defendants' constructions are amply supported by the intrinsic record and Federal Circuit case law, which requires a patentee to be held to the disclosures it made in its patent and during prosecution.

Indeed, throughout its opening brief, Plaintiff pays only lip service to the legal standards governing claim construction. And, in many instances, Plaintiff's arguments are contrary to positions it took in front of the patent office in its efforts to obtain the patents-in-suit.

Plaintiff's attempts to broaden the scope of the Patents-in-Suit contravene applicable law and must fail. Defendants' proposed constructions align with the intrinsic record and Federal Circuit law and therefore should be adopted.

## II. LEGAL STANDARDS.

This Court is familiar with the law related to claim construction. *Speedfit LLC v. Woodway USA, Inc.*, No. 13-cv-1276-KAM-AKT, 2017 WL 5633113, \*2–5 (E.D.N.Y. Nov. 20, 2017). Ultimately, in construing the claims of a patent, the goal is to “accord a claim the meaning it would have to a person of ordinary skill in the art [a “POSITA”] at the time of the invention.” *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004).

In undertaking this endeavor, as this Court previously acknowledged (*Speedfit*, 2017 WL 5633113 at \*3), the Federal Circuit has held that intrinsic evidence—*i.e.*, the claim language, the specification, and the prosecution history—“is the most significant source of the legally operative meaning of disputed claim language.” *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). “The starting point for any claim construction must be the claims themselves.” *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999). However, “the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005). “Like the specification, the prosecution history provides evidence of how the PTO and the inventor understood the patent,” and can often inform the meaning of the claim language. *Id.*, at 1317. Indeed, “[t]he prosecution history limits the interpretation of claim terms so as to exclude any interpretation that was disclaimed during prosecution. Claims may not be construed one way in order to obtain their allowance and in a different way against accused infringers.” *Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576 (Fed. Cir. 1995) (citations omitted). Thus, “because the inquiry into the meaning of claim terms is an objective one, a patentee who notifies the public that claim terms are to be limited beyond their ordinary meaning

. . . will be bound by that notification, even where it may have been unintended.” *Speedfit*, 2017 WL 5633113 at \*4 (citation omitted).

Finally, although extrinsic evidence, such as expert testimony, inventor testimony, dictionaries, and treatises, “may be considered when ambiguity remains even after consulting the intrinsic evidence,” “the Federal Circuit has cautioned courts not to place too much reliance on extrinsic evidence and too little reliance on intrinsic evidence.” *Id.* at \*4 (citations omitted). Although expert testimony can be useful to, for example, “provide background on the technology at issue” or “ensure that the court’s understanding of the technical aspects of the patent is consistent with that of a [POSITA],” “conclusory, unsupported assertions by experts as to the definition of a claim term are not useful to a court.” *Phillips*, 415 F.3d at 1318 (citations omitted). Accordingly, “a court should discount any expert testimony ‘that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent.’” *Id.* (quoting *Key Pharms. v. Hercon Labs. Corp.*, 161 F.3d 709, 716 (Fed. Cir. 1998)). Because the intrinsic evidence is controlling, “the Federal Circuit has cautioned courts not to place too much reliance on extrinsic evidence and too little reliance on intrinsic evidence.” *Speedfit* at \*4 (citations omitted).

### **III. ARGUMENT.**

#### **A. Level of Skill in the Art.**

Defendants submit with respect to the ’9360 and ’4360 patents a person of ordinary skill in the art (“POSITA”) would have: (1) a bachelor’s degree in structural and / or mechanical engineering; (2) four to five years’ experience in the inspection, design or construction of large movable structures such as movable stadium roofs, shipyard roofs and other large movable structures on tracks or rail like gantry or overhead cranes, and mechanization for such structures;

and (3) been a professional engineer or foreign equivalent and/or had sufficient experience to be assigned as an engineer of record for such large movable structure. (Declaration of Timothy Lack, attached hereto as Ex. 1, at ¶ 11, hereinafter “Lack Decl.” or “Ex. 1.”)

**B. ’9360 Patent.**

**i. “Tied arch” and “to assume most gravity-induced stress.”**

<b>Claim Term</b>	<b>Plaintiff’s Construction</b>	<b>Defendants’ Construction</b>
“tied arch” (claim 1)	an arch in which the ends are connected with a connecting member	an arch having a curved convex upper portion and a tensioned lower portion connected by vertical members with few if any diagonal members between the portions
“to assume most gravity induced stress” (claim 1)	plain and ordinary meaning	plain and ordinary meaning

Defendants’ proposed construction is consistent with the plain language of the claim, explicit disclosures of the ’9360 patent specification, and the prosecution history. Plaintiff’s proposed construction ignores these explicit disclosures, and indeed runs contrary to them, relying solely on extrinsic evidence as support. As such, Plaintiff’s construction is incorrect as a matter of law. Defendant’s construction should be adopted.

**a. The intrinsic record compels Defendants’ construction of “tied arch.”**

**(a) The claim language and specification preclude the substantial inclusion of diagonal elements.**

Claim 1 requires “said major truss being structurally configured as a *tied arch* having a curved convex upper portion and a tensioned lower portion that extends directly beneath said curved convex upper portion and is shaped, sized and positioned *to assume most gravity[-] induced stress* within the major truss as tension.” (’9360 Patent, attached to Br. as Ex. F, hereinafter ’9360 Patent, at 10:9–14 (emphasis added)). Plaintiff wrongly treats the disputed limitations “tied arch” and “to assume most gravity[-]induced stress” as if they are independent

claim limitations. (Br. at 4–9). However, the claim’s requirement that the lower portion “is shaped, sized and positioned to assume most gravity[-]induced stress within the major truss as tension” is an essential element of the “tied arch” that differentiates it from all other arches. (Lack Decl. at ¶¶ 12–13). By separating the two elements of a tied arch, Plaintiff’s construction defies the well-established rule that a court must “begin our claim construction analysis with the words of the claims themselves.” *PODS, Inc. v. Porta Stor, Inc.*, 484 F.3d 1359, 1366 (Fed. Cir. 2007) (“We begin our claim construction analysis with the words of the claims themselves.”)

Turning to the specification, the specification defines a “truss” as “a skeletal structure of individual structural members that, according to static analysis theory, will only be subject to tension and compression forces and not bending forces.” (’9360 Patent at 1:48–51.) The specification consistently describes the prior art trusses, as opposed to tied-arch trusses of the invention, as having diagonal connecting elements (with or without vertical elements) and states that they are outside of the current invention. (’9360 Patent at 1:44–2:4). For example, the specification describes that a conventional, prior-art “Warren truss” includes “parallel upper and lower horizontal elements and a plurality of diagonal elements connecting the upper and lower horizontal elements.” (*Id.* at 1:51–54.) It further notes that “[w]hen a bending stress is applied to the [prior art] truss, *the diagonal elements will assume the stress*, either as tension or compression, depending on the orientation of the diagonal element[s].” (*Id.* at 1:54–57 (emphasis added).) Thus, for the prior art trusses, the gravity-induced stress is assumed within the diagonal elements instead of within the lower portion, as is required by Claim 1.

The specification also states that there are disadvantages with including diagonal elements: they interfere with the view from some of the stadium seats. (*Id.* at 1:64–67.) According to the specification, “[i]t is an *object of the invention* to provide an improved stadium

roof design that will be lighter in weight, less bulky and less likely to interfere with the view of spectators within the stadium than the conventional stadium roof designs discussed above.” (*Id.* at 2:7–11.) This need is allegedly satisfied by using the tied-arch trusses of the invention that include vertical elements but are substantially devoid of diagonal elements (*id.* at Fig. 3; Lack Decl. at ¶¶ 16–17):

According to one particularly advantageous feature of the invention, each of the major trusses 36, 38 are structurally configured as a tied arch having a curved convex upper portion and a lower portion that is shaped, sized and positioned to assume most gravity induced stress within the major truss as tension. *This permits elimination of most or all diagonal structural elements within the major trusses, which has two advantages.* First, in the event that a spectator is forced to look through a portion of one of the major trusses, disability will not be unnecessarily impaired by the presence of a large number of diagonal structural elements. Second, and more importantly, the tied arch configuration permits the major trusses to be substantially lighter in weight than would be required with conventional trusses.

(’9360 Patent at 4:38–51) (emphasis added) (*see also* ’9360 Patent at 1:57-6 (“A structural truss that must span the type of distance that is typical in a stadium, however, typically requires vertical structural elements as well as diagonal elements to provide additional strength.”))

Significantly, the referenced tied-arch truss 38, illustrated in Fig. 3 of the patent, shows the elimination of diagonal connecting elements:

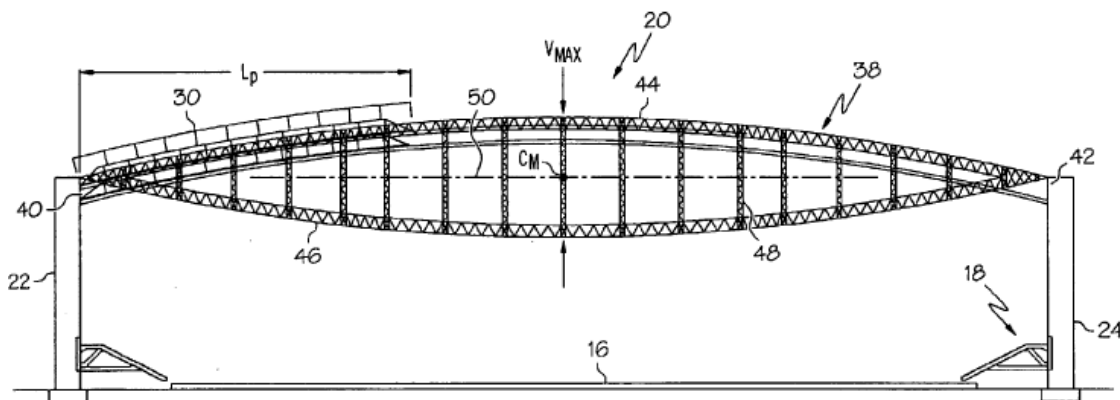


FIG. 3

(*Id.* at Fig. 3.)

The specification thus teaches that a primary objective of the invention is to eliminate most or all diagonal elements in the prior art trusses which (when present) add weight and obstruct spectator views. (*Id.*) Although the intrinsic evidence is deemed to control over expert testimony, Mr. Lack's opinion of how a POSITA would construe the specification is in harmony with the plain language of the claim. Namely, that a POSITA would understand that a feature of the claimed tied-arch was to remove the diagonal elements, which were a problematic feature of the prior art trusses. (Lack Decl. at ¶¶ 14–17.)

The Federal Circuit has consistently stated that claim terms should be construed consistently with the problem the invention intended to solve. *See, e.g., Flex-Rest LLC v. Steelcase, Inc.*, 455 F.3d 1351, 1361–62 (Fed. Cir. 2006) (construing the term “sidewall” to mean “a structure projecting or extending upward” because this is the only construction that permits the sidewall to serve its intended function); *ResQNet.com, Inc. v. Lanza, Inc.*, 346 F.3d 1374, 1379–81 (Fed. Cir. 2003) (holding that construing a claim to ensure that the invention solves the problems of the prior art disclosed in the specification does not improperly import a limitation from the specification into the claim when doing so confirms the meaning of the claim language); *Union Oil Co. of Cal. v. Atl. Richfield Co.*, 208 F.3d 989, 995–96 (Fed. Cir. 2000) (confirming claim interpretation by referring to the problem that the invention overcame). If the claim were construed to allow the tied arch to not include vertical elements and also be substantially devoid of diagonal elements, it would fail to overcome the problems presented by the prior art. Thus, this Court should adopt Defendants' proposed construction as it is the only construction consistent with this stated objective.

**(b) Plaintiff's arguments are legally and factually flawed.**

Plaintiff correctly argues that the '9360 specification is the “single best guide to the meaning of a disputed term.” (Br. at 2 (citing *Phillips*, 415 F.3d at 1313).) But Plaintiff



incorrectly attacks Defendants’ construction as somehow *excluding* a preferred embodiment described in the specification, and wrongly argues that the correct meaning of “tied arch” can be found *only in the extrinsic evidence* consisting of Plaintiff’s expert declaration (Br. at Ex. A) and excerpts from carefully selected treatises (*id.* at Exs. C, D, E.) Plaintiff argues, contrary to the law, that its tailored extrinsic evidence supersedes the meaning provided in the specification and file history. (Br. at 5-6.) This is plainly incorrect. As stated by the Federal Circuit, “[i]n determining the meaning of disputed claim language, we look *first* to the intrinsic evidence of record, examining the claim language itself, the specification, and the prosecution history.” *Janssen Pharmaceutica, N.V. v. Eon Labs Mfg. Inc.*, 134 Fed.Appx. 425, 428 (Fed. Cir. 2005) (emphasis added). Extrinsic evidence is permitted as long as it does not contradict the disclosures in the intrinsic record. *Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1327–78 (Fed. Cir. 2009) (“Courts may rely on dictionary definitions. . . only *so long as* the dictionary definition does not contradict *any* definition found in or ascertained by a reading of the patent documents.”) (emphasis added) (internal quotation marks omitted).

Even if extrinsic evidence were given weight, the extrinsic evidence largely supports Defendants’ construction. Plaintiff’s expert, Dr. Nair, defined “tied arch” as including only vertical hanger members in a 1986 article he wrote for a highly respected professional publication. (R. Shankar Nair, *Buckling and Vibration of Arches and Tied Arches*, 112 JOURNAL OF STRUCTURAL ENGINEERING, no. 6, 1986, attached hereto as Ex. 3, at 1429–40.) Under the heading “Definition of Structure,” Dr. Nair stated, “[a] tied arch is shown in Fig. 1”:

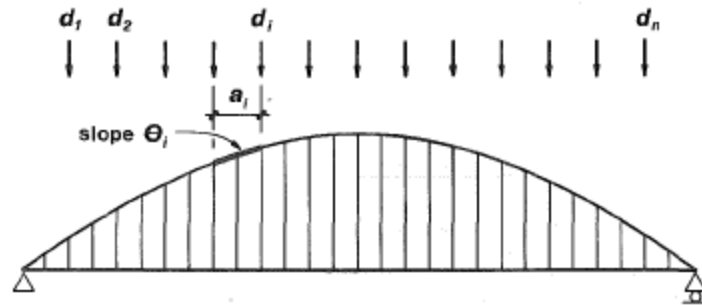


FIG. 1.—Definition of Structure

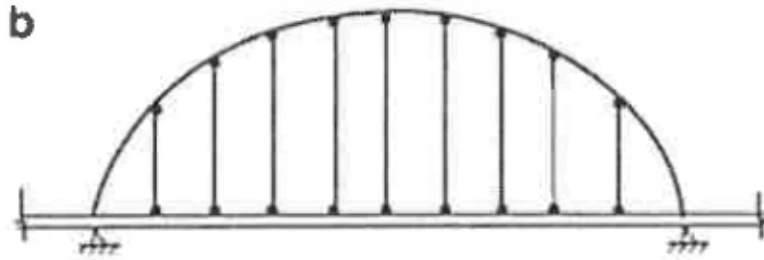
(*Id.* at 1429–30.) According to Dr. Nair:

Vertical displacement components  $d_1, d_2, \dots, d_n$  are defined at  $n$  locations along the span. The horizontal distance between components  $d_{i-1}$  and  $d_i$  is defined as  $a_i$ . The slope of the arch rib in this distance is defined as  $\theta_i$ . The displacement components should be sufficiently close together that the arch rib can be idealized as being made up of straight segments between the locations of these components.

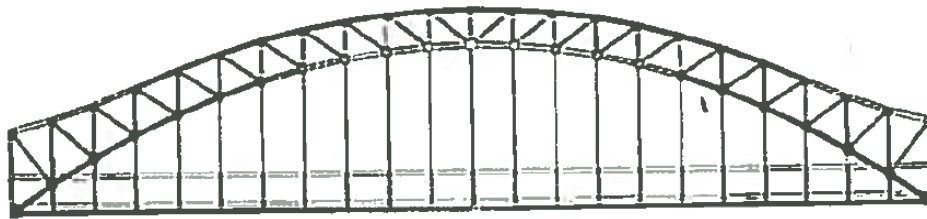
(*Id.*)

Further, U.S. Patent No. 4,393,637, to Mosier, defines “tied arch” as comprised of “a continuous wood arch member functioning as the top chord and a bottom chord comprising a tie rod secured to the top chord at opposite ends. *Vertically oriented, spaced hanger rods are secured to the tie rod along the length of the tied-arch.*” (U.S. Pat. No. 4,393,637, attached hereto as Ex. 4, at 1:42–48 (emphasis added).) Mosier also describes a “tied crescent-arch” as including “[v]ertically oriented rods” between the top and bottom chords. (*Id.* at 1:19-27 (emphasis added).) Mosier distinguishes “bowstring” trusses having diagonal connecting members as disadvantageous in appearance, function, and weight. (*Id.* at 1:57–2:10.)

Two extrinsic references relied on by Plaintiff show tied-arch trusses that utilize vertical connecting members and are devoid of diagonal members. The publication by Connor, *Fundamentals of Structural Engineering* (Br. at Ex. C), shows the following tied-arch truss having vertical members:



(*Id.* at 430.) The publication by Gaylord, *Structural Engineering Handbook* (Br. at Ex. D), also shows a tied-arch truss having only vertical members between the arch and the tensioned lower chord:



(*Id.* at 17-53.)

The foregoing extrinsic descriptions of “tied-arch truss” found in the extrinsic evidence favor Defendants’ construction that a tied arch is substantially devoid of diagonal elements and are consistent with the ’9360 Patent’s specification.

Plaintiff incorrectly characterizes the specification as teaching only that a tied-arch truss includes “a curved convex upper portion and a lower portion” (Br. at 7.) The cited portion of the specification states, as does Claim 1, that the lower portion “is shaped, sized and positioned to assume most gravity[-]induced stress within the major truss as tension.” (’9360 Patent at 4:40–41.) As discussed above, that limitation is defeated when diagonal connecting elements are included since these diagonal elements, as opposed to the lower portion, “will assume the stress, either as tension or compression, depending on the orientation of the diagonal element.” (*Id.* at 1:54–57 and 10:35–38; Lack Decl. at ¶ 14.) Further, as noted, the specification specifically states

that the tied-arch truss of the current invention has “most or all diagonal structural elements” eliminated (’9360 Patent at 4:38-48), and trusses without diagonal elements are shown in Fig. 3. Thus, contrary to Plaintiff’s allegation, the specification plainly teaches that the tied arch trusses of the invention are substantially free of diagonal elements.

Finally, Plaintiff argues that dependent Claim 5 explicitly excludes the diagonal connecting elements, and therefore Claim 1 should be read as permitting them. (Br. at 8–9.) The plain language of Claim 5 contradicts this argument when it states that the “major truss does not make substantial utilization of diagonal elements therein *to assume horizontal stress within said major truss.*” (’9360 Patent at 10:36–38 (emphasis added).) Claim 5 does nothing more than add the limitation that the diagonal elements (if present) do not absorb horizontal stress. Thus, Claim 5 merely describes the stress feature of a diagonal member if it is present. Defendants’ proposed construction is also consistent with Claim 5 because it requires diagonal elements to be “substantial[ly]”—not completely—eliminated.

Moreover, the presumption that a dependent claim is narrower than an underlying independent claim (Br. at 8–9) does not always apply, especially when, as here, the meaning of the disputed claim term is apparent from the specification. *See, e.g., CardSoft, LLC v. VeriFone, Inc.*, 807 F.3d 1346, 1352 (Fed. Cir. 2015); *Eon -Net LP v. Flagstar Bancorp.*, 653 F.3d 1314, 1323 (Fed. Cir. 2011); *O.I. Corp. v. Tekmar Co., Inc.*, 115 F.3d 1576, 1582 (Fed. Cir. 1997).

**(c) The prosecution history confirms the meaning provided by the specification.**

The prosecution history confirms the foregoing meaning of “tied arch” and does nothing to expand, narrow, or contradict the meaning provided by the specification. *Phillips*, 415 F.3d at 1313 (“Thus the court starts the decision-making process by reviewing the same resources as would that person [of ordinary skill in the art], viz., the patent specification and the prosecution

history.”) (citation omitted). In an Amendment dated October 1, 2003, the Applicants thanked the Examiner for a preceding interview and recited verbatim the definition of tied arch from the specification quoted on page 7 *supra* (’9360 Patent at 4:38–51) (Oct. 1, 2003 Amendment, attached to Br. as Ex. G, at 10 of 12, hereinafter “Oct. 1, 2003 Amendment”). There, Applicants *unequivocally* stated that “[a]t the conclusion of the interview, Applicant agreed to provide these remarks *describing what a tied arch is* and how it is not taught or disclosed by the references of record.” (Oct. 1, 2003 Amendment at 11 of 12 (emphasis added).) Because the prosecution history only repeats the definition of “tied arch” provided in the specification, the specification remains dispositive of the claim construction. *Phillips*, 415 F.3d at 1315 (“Usually, it [the specification] is dispositive; it is the single best guide to the meaning of a disputed term.”) (citation omitted).

Plaintiff incorrectly applies the doctrine of prosecution-history disclaimer by arguing that the “plain meaning governs” and there has been “no clear disavowal of claim scope.” (Br. at 6–8.) Plaintiff did not, in the Local Patent Rule 11: Joint Claim Terms Chart (ECF No. 253-1) or its opening brief (Br. at 4), allege that “tied arch” should be construed according to “plain and ordinary meaning.” Both sides advocated a specific meaning and agreed that the term “tied arch” needs to be construed by the Court, thus requiring determination of the ordinary meaning *in the context of the written description (specification) and the prosecution history*. *Phillips*, 415 F.3d at 1313. The prosecution history does not disavow or narrow the definition of “tied arch” in the specification, but instead quotes from the specification and *unequivocally states* that the quoted definition is “*what a tied arch is*.” (Oct. 1, 2003 Amendment at 10–11 of 12.) Further, this entirely ignores the many disclosures in the specification that inform a POSITA that the tied-arch truss of the invention has most, if not all, diagonal elements eliminated. Thus, the specification

supports Defendants’ construction, which is corroborated by the prosecution history. Plaintiff’s argument that there is no “prosecution history disclaimer” is a red herring. *Edwards Lifesciences*, 582 F.3d at 1329 (intrinsic record controls where the patentee “described a particular embodiment as important to the invention” or “clearly set forth a definition of the disputed claim term in either the specification or prosecution history”).

If anything, prosecution-history disclaimer precludes Plaintiff’s present construction of “tied arch,” which differs from any definition in the patent specification or prosecution history, because Plaintiff argued against such a construction during prosecution. Plaintiff’s present construction only requires “[a]n arch in which the ends are connected with a connecting member” and does not require that the ends are connected to each other or that a connecting member extends between them. As such, Plaintiff’s construction reads on an arch connected at both ends to cement footings, or to the soil, or to any other connecting member.

During prosecution, however, Applicants unequivocally disclaimed broad coverage of an arch whose ends are connected using connecting members. In response to an obviousness rejection based on U.S. Patent No. 5,287,481 to Reppas (attached hereto as Ex. 5), Applicants argued:

In an alternative interpretation of the reference wherein the arches 40 are considered to be the purported “tied arch,” Applicant points out that they cannot actually be considered tied arches because they are set in concrete footings that are anchored within the underlying soil. Neither soil nor concrete are considered by structural engineers as being capable of withstanding significant stress in tension. Accordingly, stresses that are passed on from the arch 40 to the footings will be absorbed primarily as compression of the soil that is at the outboard ends of the concrete footings, rather than as tension on the soil that is between the footings.

(Oct. 1, 2003 Amendment at 11 of 12.) Plaintiff thus disclaimed its own present construction of “tied arch.” *See, e.g., TMC Fuel Injection Sys. v. Ford Motor Co.*, 682 Fed.Appx. 895, 897–901 (Fed. Cir. 2017) (applying prosecution-history disclaimer where

patentee's prosecution statements disavowed use of pressure regulators from fuel system). The public-notice function of a patent and its file history "requires that a patentee be held to what he declares during . . . prosecution." *Springs Window Fashions LP v. Novo Indus., L.P.*, 323 F.3d 989, 995 (Fed. Cir. 2003). It makes no difference whether the Examiner relied on the patentee's statements. *Laitram Corp. v. Morehouse Indus., Inc.*, 143 F.3d 1456, 1462 (Fed. Cir. 1998).

**b. The Court should adopt Defendants' construction of "to assume most gravity[-]induced stress."**

Claim 1 requires that the tied arch includes "a tensioned lower portion" that is "shaped, sized and positioned *to assume most gravity[-]induced stress within the major truss* as tension." ('9360 Patent at 10:9–14 (emphasis added).) Defendants concede that the disputed phrase should be construed according to its plain and ordinary meaning and agree with Plaintiff's first interpretation. Plaintiff correctly states that "to assume most gravity[-]induced stress" means that the "lower portion of the tied arch assumes as tension most of the gravity[-]induced stress *within the major truss*." (Br. at 10 (emphasis added).) The major truss includes not only the tensioned lower portion, but also the curved, convex upper portion and any intervening connecting members. (Lack Decl. at ¶¶ 23–25.) All of these components can assume tension or compression stress. (*Id.* at ¶ 26.) The phrase therefore means that most of the gravity-induced stress within the major truss elements (including the curved upper portion, tensioned lower portion and intervening elements) must be assumed as tension in the lower portion. (*Id.* at ¶ 25.)

However, Plaintiff immediately follows this construction with the contrary statement, "[p]ut differently, the stresses in the major truss (the 'tied arch') induced by gravity are primarily tensile in the lower portion, as opposed to another force, such as compression or bending." (*Id.*) Plaintiff's second construction only defines the "tensioned lower portion" of a tied arch and does

not afford any meaning to the language requiring the tensioned lower portion to assume most gravity-induced stress *within the major truss* as tension. (Lack Decl. at ¶ 25.) This further construction thus runs contrary to the plain language and is improper.

**ii. “Retention mechanism,” “retention element,” and “preventing said roof member from being lifted upwardly . . . .”**

<b>Claim Term</b>	<b>Plaintiff’s Construction</b>	<b>Defendants’ Construction</b>
“retention mechanism” (claim 1)	plain and ordinary meaning	structure that continuously biases each carrier assembly downward toward the supporting rail so as to maintain traction of the drive wheel on the rail
“retention element” (claim 1)	plain and ordinary meaning	wheels
“preventing said roof member from being lifted upwardly . . . in the event of initiation of upward vertical movement” (claim 1)	plain and ordinary meaning	preventing any upward movement of the drive wheel and roof member

As with tied-arch, Plaintiff’s proposed constructions ignore the explicit disclosures of the intrinsic record, and indeed run contrary to them. Again, relying solely on extrinsic evidence as support, Plaintiff seeks to evade being limited to the disclosures in its patent. Defendants’ constructions, on the other hand, reflect the best construction that can be derived from the claim language and the specification, and thus should be adopted.

**a. “Retention mechanism” and “retention element” should be construed as means-plus-function limitations.**

Claim 1 requires a *retention mechanism* for *preventing said roof member from being lifted upwardly* with respect to said guide track, said *retention mechanism* comprising at least one *retention element* for engaging a downwardly facing surface of said guide track *in the event of initiation of upward vertical movement* of said roof member relative to said guide track.

(’9360 Patent at 10:21–27.)



The Federal Circuit has routinely held that the terms “mechanism” and “element” connote no structure. *Media Rights Techs v. Capital One Fin. Corp.*, 800 F.3d 1366, 1374 (Fed. Cir. 2015) (“We have *never* found that the term ‘mechanism’ – without more – connotes an identifiable structure.”) (emphasis added); *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1350 (Fed. Cir. 2015) (“Generic terms such as ‘mechanism,’ ‘element,’ ‘device,’ and other nonce words that reflect nothing more than verbal constructs . . . ‘typically do not connote sufficiently definite structure’ and therefore may invoke § 112, para. 6.”); *Welker Bearing Co. v. PHD, Inc.*, 550 F.3d 1090, 1096 (Fed. Cir. 2008) (“[T]he unadorned term ‘mechanism’ is simply a nonce word or a verbal construct that is not recognized as the name of structure . . .”). Because these terms do not connote structure, they are routinely construed using the “means-plus-function” analysis under pre-AIA 35 U.S.C. § 112 ¶ 6, which allows a patentee to draft claim terms “as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof,” but at a price. Means-plus-function claims “are construed to cover only ‘the structure, materials, or acts described in the specification as corresponding to the claimed function and equivalents thereof.’” *Media Rights Techs.*, 800 F.3d at 1371 (citing pre-AIA 35 U.S.C. § 112 ¶ 6 and *Williamson*, 792 F.3d at 1347–48). For example, in *Media Rights Techs.*, the Federal Circuit held that the term “compliance mechanism” must be construed as a means-plus-function term under 35 U.S.C. § 112 ¶ 6. *Media Rights Techs.*, 800 F.3d at 1372–74. The mere inclusion of an adjective (for example, “compliance” or “retention”) to the nonce term “mechanism” does not defeat this analysis when the claim limitation is otherwise written in a means-plus-function format. *Id.* at 1373–74.

**b. Defendants’ constructions align with the structures identified in the specification.**

When it is determined that a limitation is a means-plus-function limitation, the patent statute requires the limitation to be “construed to cover the corresponding structure, material or acts described in the specification and equivalents thereof.” 35 U.S.C. § 112 ¶ 6 (pre-AIA). As held by the Federal Circuit, to construe a means-plus-function claim, the district court must first determine the claimed function and then identify the corresponding structure in the written description of the patent that performs that function. *Applied Med. Res. Corp. v. U.S. Surgical Corp.*, 448 F.3d 1324, 1332 (Fed. Cir. 2006).

Claim 1 identifies the function of *retention mechanism* as “preventing said roof member from being lifted upwardly with respect to said guide track.” (’9360 Patent at 10:21–23.) The last three lines of Claim 1 further define the function as preventing any “initiation of upward vertical movement of said roof member relative to said guide track.” (*Id.* at 10:25–27.) According to the specification, this is accomplished using a “retention assembly 72” that is configured to “*continuously bias each of the carrier assemblies 64 downwardly toward the supporting rail 52 so as to maintain sufficient traction of the drive wheel 86 on the rail 52* to ensure that the drive mechanism will be able to move movable roof panels as desired.” (*Id.* at 7:3–8 (emphasis added).) In other words, this passage is describing how the drive wheel maintains traction on the roof “to move the roof panel along an upwardly inclined portion of the convex guide rail” and when wind forces might otherwise tend to lift the roof panel while it is moving. (*Id.* at 7:8–12.) Based on the description provided in the specification, a POSITA would reasonably understand that the structure that carries out the required function of the “retention mechanism” is “a structure that continuously biases each carrier assembly downward toward the supporting rail so as to maintain traction of the drive wheel on the rail.” (Lack Decl. at ¶¶ 28–31.)

Claim 1 further states that the *retention mechanism* comprises *at least one retention element* and defines the function of the retention element as “engaging a downwardly facing surface of said guide track in the event of initiation of upward vertical movement of said roof member relative to said guide track.” (’9360 Patent at 10:23–27.) According to the specification, the “retention assembly 72 preferably includes a pair of wheels 110, 112 that are []mounted for rotation with respect to a rail spanning member 116 so that each wheel is rotatably engaged with a portion of the downwardly facing surface 82 of the rail 52.” (’9360 Patent at 7:12–16.) The wheels perform the stated function of “engaging a downwardly facing surface of said guide track.” (*Id.* at 10:24–25.) Based on the specification, a POSITA would reasonably construe “retention element” as meaning “wheels.” (Lack Decl. at ¶¶ 33–35.)

The structure and operation of the retention mechanism and retention element are further described in the specification with reference to Figs. 7 and 9 (reproduced below). (’9360 Patent at 5:56–6:13, 7:3–22.) The retention assembly 72 includes a biasing structure, namely a compressive spring 122 positioned and configured to continuously bias the frame 68 of the carriage assembly downward toward the rail 52. Because the frame 68 is connected to drive wheels 86 (shown in Fig. 7, but not in Fig. 9), the spring 122 forces (biases) the drive wheels 86 downward to the top of the rail 52. The spring 122 also pushes up on the tie rod 114, which is connected to the rail spanning member 116 and the retention elements (wheels) 110 and 112. The wheels 110 and 112 are forced up against the downward facing surface of the rail 52. The top flange of the rail 52 is thereby squeezed between the drive wheels 86 on the top (Fig. 7) and the retention elements (wheels) 110, 112 on the bottom. The resulting friction causes the drive wheels 86 to maintain traction with the rail 52 to enable carrying the movable roof panels on a slope without stalling or slipping.

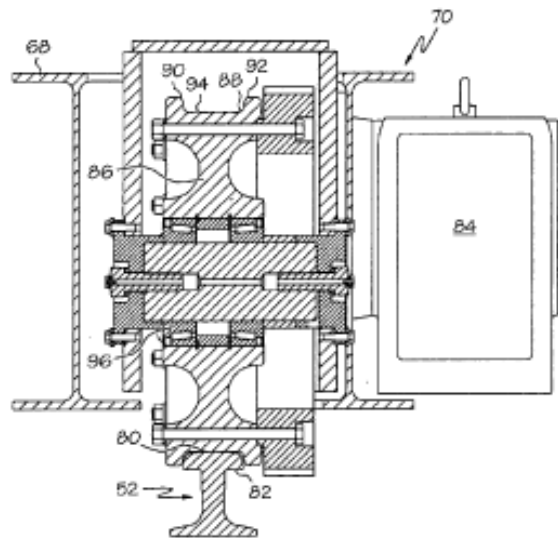


FIG. 7

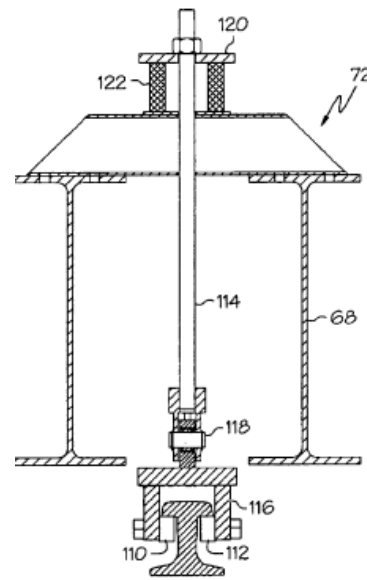


FIG. 9

(’9360 Patent at Figs. 7 and 9.)

While Plaintiff seeks to dismiss Defendants’ claim constructions as “specific embodiments” (Br. at 12), the specification provides no other structure for a “retention mechanism” or a “retention element.” There is no “ordinary meaning” of these nonce terms and Defendants’ constructions should be adopted. *See, e.g., Williamson*, 792 F.3d at 1350; *Welker Bearing*, 550 F.3d at 1096.

Plaintiff further argues that Defendants’ constructions of “retention mechanism” and “retention element” would render dependent Claims 6 and 8 superfluous. (Br. at 13–14.) But, the presumption that a dependent claim is narrower than an underlying independent claim does not apply when, as here, the meaning of the disputed claim term is apparent from the specification. *CardSoft, LLC*, 807 F.3d at 1352; *Eon-Net LP*, 653 F.3d at 1323; *O.I. Corp.*, 115 F.3d at 1582. Moreover, Claim 6 is narrower than Defendant’s construction of Claim 1 and is not superfluous. Claim 6 requires “a biasing mechanism for biasing the first wheel toward the second wheel, whereby both the first wheel and the second wheel will be urged against the guide track.” (’9360

Patent at 10:44–46.) Defendants’ construction of “retention mechanism” requires only a downward bias of each carrier assembly toward the supporting rail and does not require biasing first and second wheels toward each other. Claim 8 depends from Claim 6 and also requires biasing first and second wheels toward each other.

Finally, Plaintiff complains that it was not informed in advance of the legal basis for Defendants’ proposed construction of these terms. (Br. at 15 n.4.) Neither side provided advance notice of the legal or factual basis for its claim constructions, nor was there a requirement of doing so. Both sides had equal access to the prevailing Federal Circuit law requiring that these terms be construed using a means-plus-function analysis. *See, e.g., Media Rights Techs.*, 800 F.3d at 1374; *Williamson*, 792 F.3d at 1350; *Welker Bearing*, 550 F.3d at 1096.

**c. “Preventing said roof member from being lifted upwardly . . .”  
should be construed based on the surrounding claim language  
and the specification.**

Plaintiff argues that the phrase “preventing said roof member from being lifted upwardly . . . in the event of initiation of upward vertical movement” should be construed according to its plain and ordinary meaning. (Br. at 16.) Plaintiff then argues, contrary to ordinary meaning, that the term “prevent” in fact *permits* upward lifting and vertical movement of the roof member by a foot or more. (*Id.* at 16–18.) The term “preventing” is not generally understood to mean “allowing” or “limiting.” (Lack Decl. at ¶ 37.) Contrary to Plaintiff’s suggestion, a POSITA would construe the disputed phrase according to the surrounding claim language and specification as “preventing any upward movement of the drive wheel and roof member” (*Id.* at ¶¶ 37–41.)

Claim 1 plainly states that the retention mechanism is for “*preventing* [not merely limiting] said roof member from being lifted upwardly with respect to said guide track.” (’9360 Patent at 10:21–23.) Claim 1 states that the retention element is “for engaging a downwardly

facing surface of said guide track in the event of initiation of upward vertical movement of said roof member relative to said guide track.” (*Id.* at 10:24–27.) Taken together, these phrases describe functions that prevent upward vertical movement of the roof member relative to the guide track.

As explained above with respect to Figs. 7 and 9, the compressive spring 122 is positioned and configured to continuously bias the frame 68 of the carriage assembly downward toward the rail 52. Because the frame 68 is connected to drive wheels 86 (shown in Fig. 7), the spring 122 forces (biases) the drive wheels 86 downward to the top of the rail 52. The spring 122 also pushes up on the tie rod 114, which is connected to the rail spanning member 116 and the retention elements (wheels) 110 and 112. The wheels 110 and 112 are thus forced up against the downward facing surface of the rail 52, causing the top flange of the rail 52 to be squeezed between the drive wheels 86 on the top (Fig. 7) and the retention elements (wheels) 110, 112 on the bottom. The resulting friction causes the drive wheels 86 to maintain traction with the rail 52 to carry the movable roof panels on a slope without stalling or slipping. (Lack Decl. at ¶ 39.)

Because the flange of the rail 52 is continuously squeezed between the drive wheels 86 on the top and the retention elements (wheels) 110, 112 on the bottom, the drive wheels 86 of the roof member continuously engage the rail 52 and are prevented from being lifted upward from the rail 52. According to the specification, “the purpose of the retention assembly 72 is to *continuously bias* each of the carrier assemblies 64 downwardly toward the supporting rail 52 so as to *maintain sufficient traction* of the drive wheel 86 on the rail 52 to ensure that the drive mechanism will be able to move movable roof panels as desired.” (’9360 Patent at 7:3–8 (emphasis added).) The only way to ensure continuous traction between the drive wheels 86 and the rail 52 is to prevent any upward vertical movement of the wheels 86 that would cause

separation from the rail 52. If the drive wheels 86 separated from the rail 52, there would be no traction and the wheels would spin fruitlessly with no movement of the roof panel.

Plaintiff's proposal permits the drive wheels 86 to separate from the rail 52 "by well over a foot." (Br. at 17.) Such a construction would not only cause the movable roof panels to stall and possibly derail, but would also read the "*preventing*" limitation out of Claim 1. By contrast, Plaintiff's expert admits that the disputed phrase means "preventing the roof member from being lifted upward off the guide track, *such that the wheels lose contact with the track.*" (Nair Decl. at ¶ 37 (emphasis added).) The main difference between Dr. Nair's interpretation and Defendants' construction is that Dr. Nair's interpretation only requires minimal contact be maintained between the wheels and the guide track and does not require the continuous downward biasing of the retention mechanism to maintain "sufficient traction of the drive wheel 86 on the rail 52 to ensure that the drive mechanism will be able to move movable roof panels." ('9360 Patent at 7:3-8). If, as Dr. Nair argues, only minimal contact is maintained, there may not be enough traction to enable the roof panel to move along the guide track. This would defeat the stated purpose of the retention mechanism. (Lack Decl. at ¶ 40.)

Plaintiff cites *Brandt Industries, Ltd. v Harvest International Corp.*, No. C15-4049, 2016 WL 1452402 (N.D. Iowa 2016), for the proposition that "to prevent . . . from moving vertically" should not be construed as allowing absolutely no vertical movement. (Br. at 17.) In *Brandt*, the parties ultimately *agreed* that "to prevent . . . from moving vertically" means "to keep . . . from moving vertically" and no court ruling was required. *Brandt*, 2016 WL 1452402 at \*22-23. The object of the claim was to keep an endless conveyor belt on track and avoid damage of the belt. *Id.* at \*23. Plaintiff's proposed construction of "preventing" here would allow upward movement sufficient to defeat the function of the retention mechanism, which is to continuously bias each

of the carrier assemblies downward toward the rail and maintain traction of the drive wheels on the rail. ('9360 Patent at 7:3–8.) Only Defendants' construction will fulfill that objective.

More to the point is *Cloud Farm Associates. v. Volkswagen Group of America*, 674 Fed. Appx. 1000 (Fed. Cir. 2017), which addressed claims directed to a tilt control apparatus for a vehicle. The Court held that the ordinary meaning of “prevent flow of said fluid from the lower portion of the chamber into the upper portion of the chamber and thus prevent tilting of the frame or body of the vehicle” is the meaning to the POSITA *after reading the entire patent*. *Id.* at 1007–08. The Court then held that “prevent flow of said fluid” means “prevent *any* flow of said fluid” because “there is no support in the specification for a tilt controller where flow is merely slowed.” *Id.* at 1008–09. The same analysis applies here.

Defendants' proposed construction is the only construction that maintains a continuous downward bias of the carriage and maintains traction between the movable roof member and the rail, as described in the specification. A POSITA would understand the phrase “preventing said roof member from being lifted upwardly” with respect to said guide track as “preventing any upward movement of the drive wheel and roof member” with respect to said guide track. (Lack Decl. at ¶ 41.)



**C. '4360 Patent.****i. “Large overhead structural member” / “large, heavy roof movable panel” (Claims 1, 14, 21).**

<b>Claim Term</b>	<b>Plaintiff’s Construction</b>	<b>Defendants’ Construction</b>
“large overhead structural member” / “large, heavy roof movable panel” (claims 1, 14, 21)	plain and ordinary meaning	overhead structural member / movable roof panel for large stadiums and edifices having a length and width of at least 100 feet in each dimension and a weight of at least 100 tons

**a. The intrinsic evidence supports Defendants’ construction.**

Claim 1 uses, in its preamble, the introductory expression “[t]he system for supporting a large overhead structural member for stable movement with respect to an underlying structure, comprising: . . . .” (‘4360 Patent, attached to Br. as Ex. P, at 5:62–64.) Although the preamble of a patent claim is frequently said not to limit a claim’s scope, a preamble limits the claim if it recites essential structure of the invention, “give[s] life, meaning, and vitality” to the claim, or when the preamble phrase is used in the body of the claim to define the claimed invention. *Eaton Corp. v. Rockwell Int’l Corp.*, 323 F.3d 1332, 1339 (Fed. Cir. 2003); *see also Pitney Bowes*, 182 F.3d at 1305. Here, the body of Claim 1, after the word “comprising,” repeatedly refers to the “large overhead structural member” and its relationship to the other claim elements: “first and second transport mechanisms . . . to permit the large overhead structural member to move”; “follower wheels on the large overhead structural member”; and “a lateral release system . . . permitting a limited amount of movement of the large overhead structural member.” (‘4360 Patent at 5:65–6:12.) That the “wheels” are claimed to be “on” the large overhead structural member, and that the “lateral release system” interacts with it to permit movement of the large overhead structural member, plainly makes the preamble essential to the claimed “system” and gives life, meaning, and vitality to the claim and claimed invention. Therefore, Defendants

submit the large overhead structural member is an integral part of the invention. However, because claim language itself provides no clear meaning for that term, the specification must be consulted to determine its meaning. *Phillips*, 415 F.3d at 1315-17.

The specification of the '4360 Patent makes plain that the large overhead structural member is designed for professional sporting events, shipyards, or large edifices of over 15,000 square feet and roof panels having a length and width of at least 100 feet in each dimension and a weight of at least 100 tons. (*Id.* at 4:1-17.) These dimensions are consistent with those “convertible stadiums” described in the '9360 Patent. ('9360 Patent at 4:20-38.) That patent is *incorporated by reference* into the specification of the '4360 Patent, and is thus part of the intrinsic record. ('4360 Patent at 4:19-22.)<sup>1</sup> Therefore, Defendants contend that, based on the intrinsic record, this phrase should be construed to mean “an overhead structural member/movable roof panel for large stadiums and edifices having a length and width of at least 100 feet in each dimension and a weight of at least 100 tons.” (Lack Decl. at ¶¶ 43-49, 52.)<sup>2</sup>

**b. The prosecution history confirms Defendants' construction.**

Defendants' proposed definition is confirmed in the prosecution history. In the Office Action of February 22, 2008 (attached to Br. as Ex. U, hereinafter “Feb. 22, 2008 Office Action”), the Examiner rejected the claims based on U.S. Patent No. 5,896,708 to Doi (attached hereto as Ex. 6), explaining that “Doi discloses a system for supporting a large overhead

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<sup>1</sup> The specification of the '4360 Patent actually refers to “U.S. Patent No. 4,789,360 to Silberman et al.” ('4360 Patent at 4:19-22.) A review of the USPTO records shows that Patent No. 4,789,360 is titled “Electrical Connector with Rear Removable Contacts” to Paul et al. Thus, Defendants submit that the reference in the '4360 Patent at 4:19-22 was intended to refer to the U.S. Patent No. 6,789,360 to Silberman et al., the '9360 Patent at issue in this case.

<sup>2</sup> Without referring to the specification's definition of this phrase for an understanding of what is being claimed, this phrase would be indefinite because it is a relative term and there is no teaching as to “what” the overhead structure is “large” with respect to (unless it is a very large stadium as described in Plaintiff's patents).

structural member . . . (Fig. 1 in general; column 1, lines 6-7),” *i.e.*, a stadium roof. (Feb. 22, 2008 Office Action at 4 (internal quotation mark omitted).)

In the Office Action of October 6, 2008 (attached to Br. as Ex. Y, hereinafter “Oct. 6, 2008 Office Action”), the Examiner again rejected the claims, this time based on U.S. Patent No. 6,851,227 to Schildge (attached hereto as Ex. 7), which he described as disclosing a “system for supporting a large overhead structural member” which “may be a barrel vaulted roof hundreds of feet long . . . .” (Oct. 6, 2008 Office Action at 4; Ex. 7, 1:9-15.)

Each of these structures, considered by the Examiner to be “large overhead structural members,” are consistent with Defendants’ construction of this claim element and are similarly “larger” than a mere “access hatch.”

Likewise, the Provisional Application on which the ’4360 patent is based only describes the alleged invention in the context of the Arizona Cardinals Stadium Roof, again, consistent with Defendants’ proposed construction. (U.S. Prov. Appl. No. 60/659,848, attached to Br. as Ex. T, hereinafter “’848 Application,” at 8–56 of 80.)

**c. Plaintiff misplaces its reliance on extrinsic evidence.**

With no explanation for its reasoning, Plaintiff contends the term “large structural member” need be only something “larger than . . . an access hatch.” (Br. at 20.) Nothing in the claims of the ’4360 Patent, its specification, or the specification of the ’9360 Patent, mentions use of the invention for something as small as an “access hatch” (whatever that is), which plainly would not be subject to the gross expansion and contraction of 100-foot trusses. (Lack Decl. at ¶¶ 50–51.) Plaintiff’s proposed construction never refers to the specification or the claim language itself for support. Instead, its sole support for that contention is Dr. Nair’s speculative conclusion in paragraph 42 of his declaration. (Nair Decl. at ¶ 42.)

As best as can be determined from Dr. Nair’s CV, he has no experience in the design or construction of movable stadium roofs or mechanisms for moving large overhead structural members such as large stadium roofs. He is therefore not a POSITA. Also, he never refers to the specification or the other claims which define the mechanism using wheeled transport mechanisms and release mechanisms to release expansion stress of significant length. Nor does he even explain why a POSITA would reach the conclusion he does. Therefore, there is no need here to rely on extrinsic evidence, much less Dr. Nair’s uninformed *ipse dixit*.

**d. Claims 14, 21: “large, heavy roof movable panel.”**

Claims 14 and 21 use a similar term to that in the preamble of Claim 1, *i.e.*, “a large, heavy roof movable roof panel.” (’4360 Patent at 6:58, 8:6.) That phrase, like “large overhead structural member” in Claim 1, appears repeatedly after the word “comprising” in the body of Claims 14 and 21, and is therefore an integral element of the claimed invention. This phrase should therefore have the same construction.

**ii. “Stable movement.”**

<b>Claim Term</b>	<b>Plaintiff’s Construction</b>	<b>Defendants’ Construction</b>
“stable movement” (claim 1)	plain and ordinary meaning: “movement in a predetermined path, and limited movement nonparallel to that path”	Unable to be construed; indefinite

**a. The preamble is limiting.**

Plaintiff argues that “stable movement” is not indefinite because it is in the preamble and therefore does not substantively limit the claim. (Br. at 21–22.) But, as discussed above, a claim preamble may be limiting if it: “recites essential structure or steps”; “is essential to understand limitations or terms in the claim body”; “recit[es] additional structure or steps underscored as important by the specification”; or if there was “clear reliance on the preamble during

prosecution to distinguish the claimed invention from the prior art.” *Georgetown Rail Equip. Co. v. Holland L.P.*, 867 F.3d 1229 (Fed. Cir. 2017) (internal quotation marks omitted).

Whether the preamble constitutes a limitation “is determined on the facts of each case in light of the overall form of the claim, and the invention as described in the specification and illuminated in the prosecution history.” *Applied Materials, Inc. v. Advanced Semiconductor Materials Am., Inc.*, 98 F.3d 1563, 1572–73 (Fed. Cir. 1996); *see Am. Med. Sys., Inc. v. Biolitec, Inc.*, 618 F.3d 1354, 1358 (Fed. Cir. 2010) (“there is no simple test” for understanding the import of the preamble, but “we have set forth some general principles to guide th[e] inquiry”).

Here, the preamble of Claim 1 recites a “system” that performs dual roles. It is “*for* supporting a large overhead structural member,” and “*for* stable movement” of the large overhead structural member “with respect to” an underlying structure. (’4360 Patent at 5:62–64 (emphasis added).) The words “for” here generally signal claimed function. *See, e.g., Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 296 F.3d 1106, 1114 (Fed. Cir. 2002). These descriptions are not simply explanatory references to an unclaimed “purpose” for the system of Claim 1, nor do they “merely extoll[ ] benefits or features of the claimed invention.” *Unwired Planet LLC v. Google Inc.*, No. 3:12-cv-00504-MMD-VPC, 2015 WL 3378476, \*3–4 (D. Nev. May 26, 2015), *aff’d*, 660 Fed.Appx. 974 (Fed. Cir. 2016) (citation and internal quotation marks omitted). Rather, they provide mandatory characteristics of the claimed system that describe the context for and apply equally to the remaining portions of Claim 1.

In the specification, for example, the patentee emphasized the preamble terms, describing a need in the art “for a retractable roof and transport mechanism . . . *capable of maintaining its stability and alignment during normal use and in extreme conditions* more capably than comparable mechanisms heretofore known,” (’4360 Patent at 2:62–67 (emphasis added).) Thus,

the specification's references to the importance of stability to the invention support a conclusion that the preamble is limiting.

Additionally, during prosecution of the '4360 Patent, the patentee relied on this purpose of the preamble to overcome a rejection. (*See* Mar. 9, 2009 Amendment, attached hereto as Ex. 8, at 9 of 11 (“Applicant has not invented a bearing per se, it has invented a system for supporting a large overhead structural member that incorporates a conventional slide bearing with commercially available specifications.”).) By relying on the preamble in this way, the patentee was defining the bounds of its invention and confirming it is a limitation on the claim's scope.

Plaintiff's myopic focus on the phrase “stable movement”—to the exclusion of the other words in the preamble—invites the Court to be led astray. When the words in the preamble cannot be reasonably parsed into limiting and non-limiting portions, the Court should consider the preamble as a whole. *See, e.g., Koninklijke KPN N.V. v. Samsung Elecs. Co., Ltd.*, Nos. 2:14–CV–1165–JRG, 2:15–CV–948–JRG, 2016 WL 2610649, \*32 (E.D. Tex. May 6, 2016) (“[T]he language relied upon for antecedent basis makes up substantially the entireties of the preambles, and the preamble language is intertwined such that the preambles cannot be parsed into limiting and non-limiting portions.”); *Blue Calypso, Inc. v. Groupon, Inc.*, 93 F. Supp. 3d 575, 594 (E.D. Tex. 2015). The “stable movement” concept is inseparable from the other structures recited in the preamble: the large overhead structural member and the underlying structure. These terms provide the antecedent basis for several later references in the claims and are thus limiting.<sup>3</sup>

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<sup>3</sup> Plaintiff's contention that deleting “the preamble language . . . from the claim,” would not have any impact of the remainder of the claim is wrong. (Br. at 22.) Several phrases in the body of the claim explicitly refer to preamble terms. Removing the preamble renders the remainder of the claim nonsensical.

Although the exact words “stable movement” are not repeated again within the body of Claim 1 like these other limiting terms, they (with the other words in the preamble like “supporting”) describe the structural relationships within the claimed system. They should not be isolated from one another.

**b. “Stable movement” is indefinite.**

The ’4360 Patent’s specification admits that the prior art has stable movement, but states that the invention is “more . . . stable . . . than comparable mechanisms heretofore known.” (’4360 Patent at 1:14–18.) Thus, “stable movement” must be construed in the context of the patent; the patent must explain how the stable movement of the invention is more stable than the prior art. But, none of the claim language, specification, or prosecution history of the ’4360 Patent offers any objective criteria to determine when a “movement” is “stable,” let alone when it is sufficiently stable to be better than the stability of the movement of the prior art. The phrase is thus not amenable to construction, and the claim is therefore indefinite.

**(a) The law of indefiniteness supports Defendants’ proposed construction.**

Patent claims must “particularly point[ ] out and distinctly claim[ ] the subject matter” that the applicant “regards as the invention.” 35 U.S.C. § 112. Without a clear definition, “competitors cannot avoid infringement, defeating the public notice function of patent claims.” *Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1249 (Fed. Cir. 2008).

In 2014, the Supreme Court changed the standard used to determine indefiniteness: “a patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Nautilus Inc. v. Biosig Instrs., Inc.*, 134 S. Ct. 2120, 2124 (2014); *see also Dow Chem. Co. v. Nova Chems. Corp.*, 803 F.3d 620, 630 (Fed. Cir. 2015)

(“[T]here can be no serious question that *Nautilus* changed the law of indefiniteness.”). “[I]t is not enough . . . to identify ‘*some standard* for measuring the scope of the phrase,’” or that “a court can ascribe *some* meaning to a patent’s claims.” *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1370-71 (Fed. Cir. 2014) (citations omitted). Rather, “[t]he claims, when read in light of the specification and the prosecution history, must provide objective boundaries for those of skill in the art.” *Id.* at 1371 (citing *Nautilus*, 134 S. Ct. at 2130 and n.8); *see also Dow*, 803 F. 3d at 630–31 (citations omitted).

**(b) The intrinsic evidence does not explain the term “stable movement.”**

The ’4360 Patent uses the term “stable movement” only once, but it provides no intrinsic guidance about its meaning. (’4360 Patent at 5:63.) The specification’s lack of guidance<sup>4</sup> about this claim term is most apparent in the section distinguishing the invention from the prior art.

In particular, the specification describes the claimed invention as able to “maintain[ ] its stability”<sup>5</sup> despite the “significant and unpredictable” impact that “natural forces such as wind, rain[,] snow and even earthquakes [have] on such a large structure,” because it “[is] engineered to withstand the worst possible confluence of such forces.” (*Id.* at 1:29–35, 2:55–56.) But rather than clarifying “stable movement,” this disclosure instead suggests that the concept of stability depends on the circumstances. (*Id.*; *see* Lack Decl. at ¶¶ 54–59.) A patent is indefinite when claim language “might mean several different things and ‘no informed and confident choice is

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<sup>4</sup> Indeed, nothing in the specification specifies *which* “movement” in the claimed system must be “stable.” And there is no explanation at all about how or when a movement is stabilized “with respect to an underlying structure,” as required by Claim 1. (’4360 Patent at 5:63–64.)

<sup>5</sup> “[I]t is an object of the invention to provide an improved design for a retractable roof and transport mechanism that is . . . *capable of maintaining its stability and alignment during normal use and in extreme conditions more capably than comparable mechanisms heretofore known.*” (’4360 Patent at 2:62–67 (emphasis added).) Because the object is to maintain *both* stability and alignment, stability cannot be synonymous with alignment.



available among the contending definitions.” *Nautilus*, 134 S. Ct. at 2130 and n. 8 (citation omitted). Nowhere does the ’4360 Patent identify criteria by which a POSITA can make an informed and confident choice with respect to whether any particular movement is “stable.”

The specification characterizes the invention as “more . . . stable than comparable mechanisms heretofore known.” (’4360 Patent at 1:14–18.) A POSITA would thus understand that the “stable movement” of the ’4360 Patent’s invention is thus somehow different (and presumably better) than the stability of the prior art. (Lack Decl. at ¶ 55.) But nothing in the specification here explains what “stable movement” means, or how exactly it is different than the prior art. (*Id.*) A POSITA requires objective criteria to determine not only when a “movement” is “stable,” but also when it is *sufficient* to be “more stable” than the prior art. (*Id.*)

Other parts of the specification suggest that “stable” is open to varying interpretations. For example, the specification incorporates U.S. Patent No. 6,415,556 (attached hereto as Ex. 9, hereinafter the “’556 Patent”) where “stable” is not used as relative measure of movement, but as a qualitative result. (’556 Patent at 5:35–37 (“It has been found that the system 10 is the *most stable* when the orientation mechanism 26 is provided on but one end of the roof member 20.”) (emphasis added).)

With no guidance from the intrinsic evidence to answer the key question: “*Is this movement stable?*”; the determination is left to subjective assessment. But even then, a POSITA would require critical information nowhere provided by the patentee to make such a determination, such as: (a) What is the “movement” at issue? (vertical movement? lateral movement? both?); (b) What characteristic(s) of the movement should determine whether it is “stable” and are those characteristics quantitative or qualitative, or both?; (c) What test or objective criteria should be used?; (d) For how long must the “movement” satisfy that criteria to

be a “stable movement?”; and so forth. (*See* Lack Decl. at ¶¶ 55–59.) Without this information, it is conceivable that a large structural member’s shuddering or lurching movements in the face of high winds, severe weather, or an earthquake may nevertheless be considered “stable” under those circumstances, but the same movements on a clear day may not be considered “stable” under those calmer circumstances. (*Id.* at ¶ 59.)<sup>6</sup> This uncertainty is why courts require that patents describe a particular test or objective criteria to evaluate the meaning of such terms. *Nautilus*, 134 S. Ct. at 2124.

Plaintiff’s proffered “plain and ordinary meaning” of “stable movement” is not plain and ordinary at all. Rather, it results from mashing together two *other* terms from Claim 1 (“move in a predetermined path” and “limited amount of movement . . . nonparallel to said predetermined path” (’4360 Patent at 5:67, 6:11–13)) with no basis in the intrinsic or extrinsic evidence to do so.<sup>7</sup> If Plaintiff’s so-called “plain and ordinary meaning” of “stable movement” was actually inserted into Claim 1, it would immediately render the several other instances of “in a predetermined path” and “nonparallel to said predetermined path” superfluous. This violates the “linguistic differentiation” canon of claim construction that provides that different claim terms are understood to have different meanings.<sup>8</sup> *Symantec Corp. v. Computer Assocs. Int’l, Inc.*, 522 F.3d 1279, 1289 (Fed. Cir. 2008).

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<sup>6</sup> For example, is the movement required to be stable during normal weather and the roof not to be moved during extreme weather? Or is the movement stable in all weather?

<sup>7</sup> Plaintiff’s expert actually paraphrases the Claim 1 language “a limited amount of movement of the large overhead structural member in a direction that is nonparallel to said predetermined path.” (’4360 Patent at 6:11–13.)

<sup>8</sup> The legal maxim is *lex rejicit superflua, pugnantia, incongrua* (“[the] law rejects superfluous, contradictory, and incongruous things”). Bennion, F. STATUTORY INTERPRETATION § 316, at 776 (3d ed. 1997).

Plaintiff's expert suggests that the "plain meaning" of "stable movement" is "confirmed by the recitation in the body of Claim 1, which describes the allowance of a limited amount of movement that is not parallel to the predetermined path." (Nair Decl. ¶ 43 (citing '4360 Patent at 6:11–13).) Yet, applying this logic, a POSITA reviewing the specification and prosecution history could just as plausibly refer to any of the several other descriptions of "movement" to support a number of different definitions of "stable." (*See, e.g.*, '848 Application at 22 of 80 (discussing the "[m]ovement of the dry bearings on the guide shaft" as "very smooth and quiet."); *id.* at 29 of 80 (observing that "[t]he movement of the linear bearing assembly was as smooth and effortless under the 260 kip load as it was under the 145 kip load."); *id.* at 9 of 80 ("[t]he linear bearing assemblies will provide 36" of total lateral movement in addition to supporting the roof structure."); *id.* at 13 of 80 (referring to "[t]he slide bracket assemblies [that] allowed only vertical movement of the linear bearing assembly for loading purposes."); Lack Decl. at ¶ 61.) Plaintiff's expert fails to explain why he chose this movement, among the many movements described in the patent, for his definition. (Lack Decl. at ¶ 61.)

**(c) The extrinsic evidence does not explain the term "stable movement."**

With nothing in the claim language, specification, or prosecution history to provide objective boundaries for the meaning of "stable movement," Plaintiff resorts to extrinsic evidence.<sup>9</sup> In particular, Plaintiff points to "[a] reference cited in Defendants' invalidity contentions" and a "[a] reference, cited during the '9360 Patent's prosecution," as teaching that

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<sup>9</sup> Although a court may consult extrinsic evidence, such as dictionaries, treatises, and expert testimony for background information and to "shed useful light on the relevant art," *Phillips*, 415 F.3d at 1317 (internal quotation mark omitted), this type of evidence is less reliable than intrinsic evidence in determining the meaning of claim terms and is "unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence." *Id.* at 1318–19.

ordinary artisans understand the term “stable movement.” (Br. at 23.) But the cited references do not even use the phrase “stable movement,” so any light they might shed on the meaning of the claim term is negligible here.<sup>10</sup> And other patents that actually use the complete phrase “stable movement” (nowhere cited in Plaintiff’s brief, unsurprisingly) mean something different by the term than what Plaintiff proposes here. (*See, e.g.*, U.S. Patent Nos. 7,854,475 to Ito for “Sliding roof,” attached hereto as Ex. 10, at 8:10–11 (describing “stable movement” as “smoother” than in a conventional case); and 6,454,286 to Hosino for “Traveling device for smooth and stable movement on uneven and inclined surfaces,” attached hereto as Ex. 11, at 6:34–35 (defining “stable” as “[a] body member ha[ving] a center of the gravity within [a] rectangle.”).

For all of these reasons, the term “stable movement” is not amenable to construction, and the claim is thus indefinite.

**iii. “On the large overhead structural member.”**

<b>Claim Term</b>	<b>Plaintiff’s Construction</b>	<b>Defendants’ Construction</b>
“on the large overhead structural member” (claims 1, 14, 21)	plain and ordinary meaning	Plain and ordinary meaning

This phrase appears in the expression “said transport mechanism comprising a single trolley rail on the underlying structure . . . and a plurality of rail follower wheels on the large overhead structural member that are adapted to ride on said single trolley rail.” (’4360 Patent at 6:1–6, 63–67, 8:12–16.) The parties have agreed that the term “said transport mechanism” in this clause means “each of said first and second transport mechanisms.” (*See* Local Patent Rule 11: Joint Claim Terms Chart, ECF No. 253-1, at 9.) Defendants hereby agree that the term “on the

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<sup>10</sup> Whether Defendants cited a reference in its invalidity contentions that uses the word “stable” is neither here nor there. Defendants—of course—sought references that used the term. To do otherwise would leave Defendants without an invalidity position for the term should the Court ultimately find the term “stable movement” definite. There is nothing about Defendants’ actions here that help inform the meaning of the claim term, though.

large overhead structural member” should be construed in accordance with its plain and ordinary meaning. As explained by Mr. Lack, a POSITA would understand that this claim limitation focuses on the relationship between the wheels and the large overhead structural member, rather than the association between the wheels and the stationary trolley rail. (Lack Decl. at ¶ 64.)

**iv. “A lateral release mechanism for each of said transport mechanism.”**

<b>Claim Term</b>	<b>Plaintiff’s Construction</b>	<b>Defendants’ Construction</b>
“a lateral release system for each of said transport mechanism” (claims 1, 14, 21)	plain and ordinary meaning	a lateral release system is provided for each of said first and second transport mechanisms, located on opposite sides of the claimed system

Defendants’ proposed construction is consistent with the plain language of the claim, specification disclosures and importantly, amendments required by the examiner during prosecution of the ’4360 Patent. Plaintiff’s proposed construction, on the other hand, ignores the claim language and specification and tries to eschew the claim amendments required to secure the patent. Plaintiff argues that Defendants’ definition has no intrinsic evidence support and improperly excludes a preferred embodiment of the invention. But Plaintiff’s argument ignores that (i) the claim language unambiguously supports Defendants’ definition; (ii) the specification explicitly states that the first and second transport mechanisms are on “opposite ends” of the roof; and (iii) that the Federal Circuit has repeatedly said that it is not improper to adopt a construction that excludes a preferred embodiment when, as here, the patentee was required to narrow their invention during prosecution. *Elektá Instrument S.A. v. O.U.R. Scientific Int’l, Inc.*, 214 F.3d 1302, 1308 (Fed. Cir. 2000) (adopting a claim construction that excluded the preferred and sole embodiment in light of, inter alia, prosecution history). Thus, contrary to Plaintiff’s

arguments Defendants’ construction is supported by the intrinsic record and Federal Circuit case law and should be adopted.

**a. The intrinsic evidence supports Defendants’ position.**

Claim 1 of the ’4360 patent recites, in relevant part:

1. The system for supporting a large overhead structural member for stable movement with respect to an underlying structure, comprising:

*first and second transport mechanisms,*

...

a lateral release system *for each of said transport mechanism*, ... for maintaining the transport mechanism in a predetermined orientation ... .

Claims 14 and 21 read similarly. Bolded and italicized above are reference to two terms “first and said transport mechanism” and “said transport mechanism.” The parties have agreed that the phrase “said transport mechanism” refers to the “first and second transport mechanisms” identified earlier in the claim language. (D.I. 253-1, at 10.) The phrase “a lateral release system for each of said transport mechanism” can thus be read to mean “a lateral release system for each of first and second transport mechanisms.” Plaintiff does not take issue with this aspect of Defendants’ definition. Nor could they, as the Federal Circuit requires the same claim language to be interpreted consistently throughout the patent. *Digital Biometrics Inc. v. Identix, Inc.*, 149 F.3d 1335, 1345 (Fed. Cir. 1998). In other words, Plaintiff does not dispute that the plain language of the claim requires both the first and second transport mechanism to have a lateral release system.

Instead, Plaintiff’s disagreement is the requirement by Defendants’ definition that the first and second transport mechanisms (and thus their associated lateral releases) be located on opposite sides of the roof. (Br. at 25.) Plaintiff argues that nothing in the specification supports requiring the first and second transport mechanisms (and thus their associated lateral releases) to

be on opposite sides of the roof. (Br. at 25.) To the contrary, however, the specification plainly states that the first and second transport mechanisms are on opposite sides:

Referring now to Fig 2. ... second movable roof panel 20 is supported at a first end 25 by a *first transport mechanism 26* ... . Second movable roof panel 20 is further supported at a second, ***opposite end 27*** by a *second transport mechanism 32*.

(‘4360 Patent, 4:23-35 (emphasis added).) Looking at Figure 2 below, confirms the above language. The first transport mechanism 26 and the second transport mechanism 32 are on opposite sides of the roof panel.

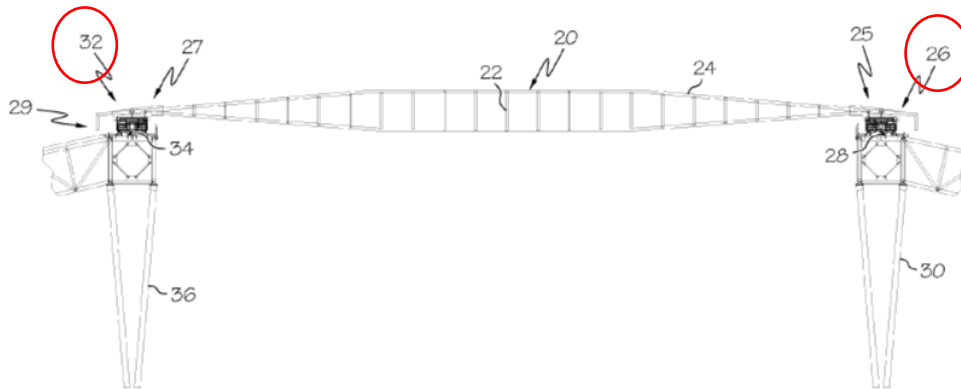


FIG. 2

(‘4360 Patent, Fig. 2.) As the plain claim language requires each transport mechanism to have a lateral release system, this means that the lateral release systems, like the transport mechanisms are necessarily on opposite sides of the roof system.

Plaintiff argues that the first and second transport mechanisms on opposite sides of the roof panel cannot both have a lateral release because that would improperly exclude a preferred embodiment. (Br. at 25-26.) But to adopt Plaintiff’s argument would improperly ignore the plain meaning of the claim language. *Tip Systems, LLC v. Philips & Brooks/Gladwin Inc.*, 529 F.3d 1364, 1373 (Fed. Cir. 2008) (Refusing to construe the claim term to encompass an alternative embodiment because it would contradict the language of the claims).

Plaintiff also ignores, that the plain claim language they now try to side-step was added by amendment to secure issuance of the '4360 patent. Before the final claim amendment required by the Examiner, Claim 1 read, in relevant part as shown on the left. The examiner then required amendments to Claim 1 (and similar amendments to Claim 14 and 21) in order to secure their allowance. The claim language the examiner required to be deleted and added is reflected on the right.

Original Claim Language	Amended Claim Language
<p>1. A system for supporting a large overhead structure member for stable movement with respect to an underlying structure, comprising:</p> <p>A transport mechanism that is constructed to permit ...said transport mechanism comprising...; and</p> <p>A lateral release system, interposed between said rail follower wheels and the large overhead structural member... .</p>	<p>1. A system for supporting a large overhead structure member for stable movement with respect to an underlying structure, comprising:</p> <p><del>A transport mechanism that is constructed</del> <b><u>first and second transport mechanisms, each of which is constructed</u></b> to permit ...said transport mechanism comprising...; and</p> <p><del>A lateral release system</del> <b><u>a lateral release system for each of said transport mechanism</u></b>, interposed between said rail follower wheels and the large overhead structural member... .</p>

(May 29, 2009 Examiner's Amendment, attached hereto as Ex. 12, at 2 (emphasis added).)

There is little question that these amendments added the limitation that the claimed system is required to have two transport mechanisms, and each transport mechanism has a lateral release. In combination with the specification's disclosure that the transport mechanisms are on opposite sides of the roof panel leads to a single reasonable conclusion: The claim requires a first and second transport mechanism on opposite sides of the roof panel, each of which has a lateral release mechanism.

Plaintiff argues that there is no indication that the addition of this language was intended to exclude from the claim's scope the preferred embodiment of the '4360 where only one of the



transport mechanisms has a lateral release. (Br. at 26–27.) But the Examiner’s notice of allowance stated that she was (i) requiring these amendments to be made; and (ii) that with these amendments the claims were being allowed because “the prior art . . . does not disclose a lateral release system comprising a linear slide bearing *as set forth in the claims.*” (Ex. 12, at 3 (emphasis added).) Further still, the Examiner explicitly stated that “[a]uthorization for this examiner’s amendment was given in a telephone interview with [applicant] on 5/21/2009.” (*Id.*)

Additionally, in requiring the above amendments to the claim, the Examiner invited the applicant to provide any comments considered necessary in light of the amendments. (Ex. 12, at 3). The Applicants did not object to the Examiner’s amendments<sup>11</sup>, nor did they attempt to amend the language added—language that was made with applicants’ express authorization. *See Acco Brands, Inc. v. Micro Sec. Devices, Inc.*, 346 F.3d 1075, 1079 (Fed. Cir. 2003) (“Although there is no obligation to respond to an examiner’s statement of Reasons for Allowance, and the statement of an examiner will not necessarily limit a claim . . . in this case the examiner simply repeated the arguments that the patentee had presented.”). Moreover, in the present instance the language in question was not merely a statement by the examiner, but rather an *amendment* to the claim language itself that limited its scope. In light of this amendment to the claim language, it is not improper for Defendants’ claim construction to exclude a preferred embodiment. *N. Am. Container, Inc. v. Plastipak Packaging, Inc.*, 415 F.3d 1335, 1346 (Fed. Cir. 2005) (“We find

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<sup>11</sup> Applicants did, however, submit comments on statement for reason for allowance to “note for the record that the amendments that were made in the Examiner’s Amendment were strictly in response to formal considerations . . . not intended to define over prior art.” (Aug. 20, 2009 Comments on Statement for Reasons for Allowance, attached to Br. as Ex. S.) This distinction is of no moment, as courts have found prosecution history disclaimer to apply when amendments are made for reasons other than defining over prior art—particularly where, as here, the amendments limit the scope of the claims. *See Biogen Idec, Inc. v. GlaxoSmithKline LLC*, 713 F.3d 1090 (Fed. Cir. 2013).

even less persuasive NAC's argument that the district court's construction would read out of the claims the preferred embodiments shown in figures 14 and 15 . . . we have previously explained that limitations may be construed to exclude a preferred embodiment if the prosecution history compels such a result.”); *see also Elekta*, 214 F.3d at 1308 (adopting a claim construction that excluded the preferred and sole embodiment in light of, *inter alia*, prosecution history).

Further, as legal support for its argument that Defendants’ definition improperly excludes a preferred embodiment, Plaintiff relies on *Thorner v. Sony Comp. Ent. Am. LLC*, 669 F.3d 1362, 1338 (Fed. Cir. 2012). (Br. at 26.) But the facts of *Thorner* are entirely distinguishable from those here. In *Thorner*, the question was whether statements in the specification rose to the level of a disavowal such that the claim scope should be restricted. *Thorner*, 669 F.3d. at 1338. That is a far cry from the situation here, where *amendments* were made to claim language in order to secure the patent’s allowance. Indeed, when faced with narrowing claim amendments such as the ones here, the Federal Circuit has held that “the doctrine of prosecution history disclaimer narrows the meaning of the claim constituent with the scope of the claim surrendered.” *Biogen*, 713 F.3d at 1095.

**b. Plaintiff must be held to the plain language of its claims.**

In reality, Plaintiff’s argument is nothing more than a request for this Court to redraft the claim language because the plain meaning would lead to a roof structure that is “undesirable.” (Br. at 27.) Plaintiff again relies on the unsupported Declaration of Dr. Nair for this argument. But the Federal Circuit is clear: “courts may not redraft claims, whether to make them operable or to sustain their validity.” *Chef America, Inc. v. Lamb-Weston Inc.*, 358 F.3d 1371, 1373-74 (Fed. Cir 2004). “Even ‘a nonsensical result does not require the court to redraft the claims [].’” *Id.* at 1374 (quoting *Process Control Corp. v. Hydrexclaim Corp.*, 190 F.3d 1350, 1357 (Fed. Cir.

1999)). Rather, where, as here, the plain claim language is susceptible to only one reasonable construction, the claims must be construed based on the claims as drafted. *Id.*

Neither Plaintiff nor Dr. Nair addresses the clear language of the claim. That is because, as agreed to by Mr. Lack, the plain meaning cannot be reasonably disputed: the first and second transport mechanisms, which the specification says are on opposite sides of the roof panel, must both have a lateral release. (Lack Decl. at ¶ 65.) Thus, this court, in accord with the Federal Circuit’s settled practice, should construe the claims as written, and not as the patentees wish they had been written. *Chef America*, 358 F.3d at 1373-74. As written, the claim unambiguously requires that the first and second transport mechanisms are on opposite sides of the roof system, and that each of these mechanisms has a lateral release.

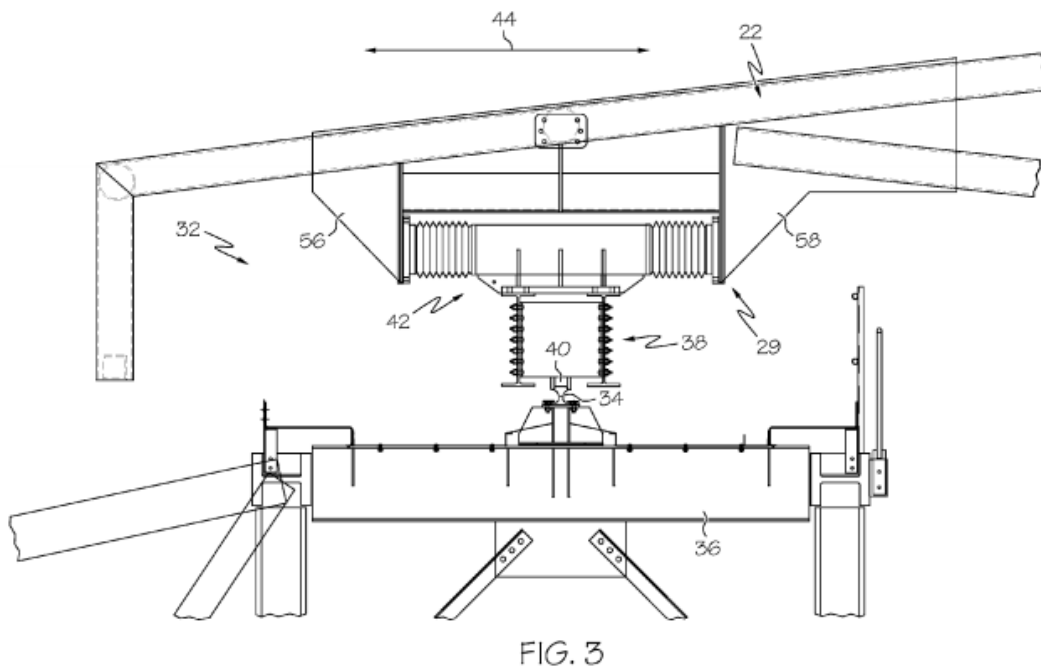
**v. “Interposed between.”**

<b>Claim Term</b>	<b>Plaintiff’s Construction</b>	<b>Defendants’ Construction</b>
“interposed between” (claims 1, 14, 21)	plain and ordinary meaning; alternatively, “placed in an intervening position”	directly between, namely, placed directly above said rail follower wheels and directly below said large overhead structural member (claim 1) or movable roof panel (claims 14, 21) as exemplified in Figure 3

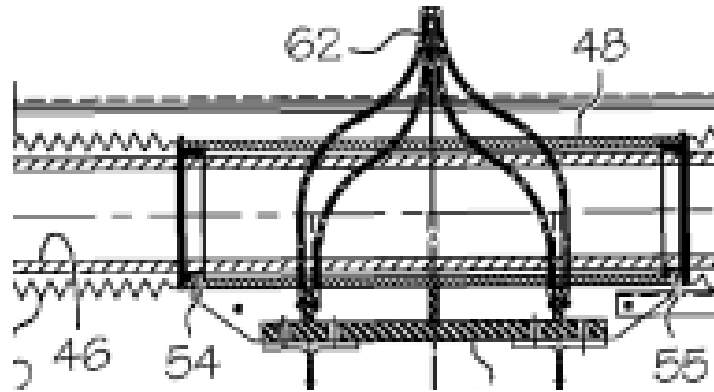
In Claim 1, this term falls within the phrase “a lateral release system for each of said transport mechanism, interposed between said rail follower wheels and the large overhead structural member,” and in Claims 14 and 21, it falls within the phrase “a lateral release system for each of said transport mechanism, interposed between said rail follower wheels and the movable roof panel.” (’4360 Patent at 6:7–9; 7:1–3; 8:16–18.) “Interposed between” should be construed as “directly between, namely placed directly above said rail follower wheels and directly below said large overhead structural member, as exemplified in Figure 3.”

**a. Defendants' construction is supported by the intrinsic evidence.**

In the specification, the phrase “interposed between” is used twice, and used consistently. First, the specification states “[l]ateral release system 29 is structurally interposed between the rail follower wheels 40 and the movable roof panel 20, as is clearly shown in Fig. 3.” (’4360 Patent, 4:49–51.) Fig. 3 shows that, from a top-to-bottom vertical order, the roof panel 20 is on top, followed by the lateral release system 29, followed by the rail follower wheels 40:



(’4360 Patent, Fig. 3.) The second use of “interposed between” in the specification states “[b]earing sleeves 54, 55 are interposed between the guide shaft collar 48 and the guide shaft 46 at each end of the guide shaft collar 48.” (*Id.* at 5:13-15.) Fig. 4 demonstrates how the bearing sleeves are interposed between the guide shaft collar 48 and guide shaft 46 such that, from a top-to-bottom vertical order, the guide shaft collar 48 is on top, followed by the bearing sleeve 54 or 55, followed by the guide shaft 46:



(’4360 Patent, Fig. 4.) Taken together, the intrinsic evidence demonstrates that the ’4360 Patent consistently uses the phrase “interposed between” to refer to a vertical stacking order, such that when ordering three elements, for one to be “interposed between” the other two, such element must be directly between the other two elements. When the patent refers to “interposed between” in relation to the lateral release system, it means that the lateral release system is directly between the other two elements, namely directly above the rail follower wheels and directly below the large overhead structural member or movable roof panel.

This disputed term was added to the specification and each of the independent claims of the original patent application during prosecution of the application. The lateral-release-system element was originally defined as:

a lateral release system for maintaining the transport mechanism<sup>12</sup> in a predetermined orientation while simultaneously permitting a limited amount of movement of the large overhead structural member . . . .

(Mar. 3, 2006 Application, attached hereto as Ex. 13 at 10.) In the first Office Action, independent claims 1, 11 (now 14), and 21 were rejected as being anticipated by U.S. Patent No. 5,896,708, to Doi. (Feb. 22, 2008 Office Action at 2.) In the next Office Action, the Examiner again rejected independent claims 1, 11 (now 14), and 21, but this time in view of U.S. Patent

<sup>12</sup> Here again the claim (in its original form) does not differentiate between the first and second transport mechanisms, but encompasses both.

No. 6,851,227, to Schildge. (Oct. 6, 2008 Office Action at 4.) The Examiner explained that Schildge used a transport mechanism comprising a single trolley rail with no additional rail and a plurality of rail follower wheels, and a “lateral release system (Fig. 2A, elements 32/33/34/35) for maintaining the transport mechanism in a predetermined orientation while simultaneously permitting a limited amount of movement of the large overhead structural member in a direction that is nonparallel to said predetermined path, wherein said system transmits a very small side load to said single trolley rail with no need for additional lateral reinforcement . . . .” (*Id.* at 4–5.)

In response to that rejection, Applicants amended the specification to state “[l]ateral release system 29 is structurally interposed between the rail follower wheels 40 and the movable roof panel 20, as is clearly shown in FIGURE 3.” (Mar. 9, 2009 Amendment at 2 of 11 (revising ’4360 Patent at 4:49–51) (emphasis omitted).) The independent claims were amended to add the same limitation, *i.e.*, that the lateral release system is “interposed between said rail follower wheels and the large overhead structural member” or “movable roof panel.” (*Id.* at 4–7 of 11 (emphasis omitted).)

What is “shown in FIGURE 3” is that the release system or linear bearing is “between,” *i.e.*, completely between, not partially between, the wheels and the overhead structural member. In Schildge, the linear bearing 34 was *below* the wheels 20 and the overhead structure. (*See* Schildge at Figs. 13–15.) From a vertical-orientation perspective from top to bottom, Schildge disclosed (1) overhead structure, (2) wheels, (3) linear bearing, whereas Plaintiff’s invention disclosed (1) overhead structure, (2) linear bearing, (3) wheels.

To support those amendments, Applicants argued that: (i) as amended, the “claims clearly recite that the lateral release system is interposed between the rail follower wheels and the movable roof panel”; (ii) unlike Schildge, in Applicants’ invention “[t]here is a lateral release

system *between* the rail follower wheels and the movable roof panel”; and (iii) “[w]ithout the lateral release system that is *between* the rail follower wheels and the moveable roof panel, the alignment of the system could be badly compromised.” (Mar. 9, 2009 Amendment at 9–10 of 11 (emphasis omitted) (second and third emphases added).) Thus, the Applicants themselves clarified that the vertical orientation of the elements was key, and the linear slide bearing must be directly between the rail follower wheels and the roof panel.

Accordingly, in view of the prosecution history, the construction of this element should be that the release system of each transport mechanism is directly between, *i.e.*, placed directly above the rail follower wheels and directly below the large overhead structural member (Claim 1) or movable roof panel (Claims 14 and 21), “as is clearly shown in FIGURE 3.” (Lack Decl. at ¶¶ 66–70.) No other possible positioning was shown or described in the patent specification. What is shown in Figure 3 is that the release system or linear bearing is “between”—completely between, not partially between—the wheels and the overhead structural member.

Plaintiff asserts that Defendants’ proposed construction excludes a “preferred embodiment” from the ‘848 Application (Br. at 30); however, the ‘4360 Patent’s specification does not disclose the carrier assembly referred to by Plaintiff, much less say it is “preferred.” Even the ‘848 Application does not refer to it as a “preferred embodiment.” And, even if it had, the Applicants’ claims were refined via Fig. 3 and narrowed during prosecution to overcome the prior art. Plaintiff cannot now rely on one figure from a 90-page provisional application to overcome the scope relinquished during prosecution by Applicants’ own statements and amendments.

**b. Plaintiff mistakenly focuses only on extrinsic evidence.**

Plaintiff supports its contentions with only Dr. Nair’s opinion that is replete with error, and whose approach in construing the claims was rejected by *Phillips*. (Nair Decl. at ¶ 48.) He

discusses what “I understand,” not what a POSITA would understand, and he does it based on dictionary definitions. *Trs. of Columbia Univ. v. Symantec Corp.*, 811 F.3d 1359, 1363 (Fed. Cir. 2016) (“Indeed, our en banc *Phillips* opinion rejected this very approach . . . ‘in which the specification should be consulted only after a determination is made, whether based on a dictionary, . . . , as to the ordinary meaning or meanings of the claim term in dispute.’”). He does not even attempt to evaluate the language of the claim “in the context of all the intrinsic evidence, including . . . the prosecution history.” *GlaxoSmithKline LLC*, 713 F.3d 1090, 1094 (Fed. Cir. 2013). Indeed, “the specification particularly, ***but also the prosecution history***, informs the determination of claim meaning in context . . . .” *World Class Tech. Corp. v. Ormco Corp.*, 769 F.3d 1120, 1123 (Fed. Cir. 2014) (emphasis added). Dr. Nair entirely ignores the amendments made by the patentee to overcome prior art, as well as the prior art’s disclosures. Moreover, he only gives lip service to the ***amended*** text of the specification, but fails to recognize it as amended text or recognize why the amendment was made because of the prior art. Finally, he simply ignores the term “as shown in FIGURE 3,” which was used to describe what the term “interposed between” means. Accordingly, here again, Plaintiff simply ignores the claim amendment and teaching of the specification.

**vi. “Limited amount of movement.”**

<b>Claim Term</b>	<b>Plaintiff’s Construction</b>	<b>Defendants’ Construction</b>
“limited amount of movement” (claims 1, 14, 21)	plain and ordinary meaning; movement sufficient to accommodate variations in track width	indefinite

As with “stable movement,” none of the claim language, specification, or prosecution history of the ’4360 Patent offers any objective criteria to determine when, exactly, the claimed “movement” is present in a “limited amount.” As a result, this term is thus not amenable to construction, and the claim is indefinite.



“Limited amount of movement” involves “words of degree,” which courts routinely recognize as giving rise to “[d]efiniteness problems.” *See Seattle Box Co., Inc. v. Indus. Crating & Packing, Inc.*, 731 F.2d 818, 826 (Fed. Cir. 1984). Although absolute precision is unattainable, the claims must provide *objective boundaries*. *Interval Licensing*, 766 F.3d at 1370–71. No boundaries are disclosed in this patent.

**a. The intrinsic evidence does not define the term.**

Claim 1 describes the *kind* of movement at issue (the “movement of the large overhead structural member in a direction that is nonparallel to [a] predetermined path”) but does not specify how to *quantify* an “amount” of it. (’4360 Patent at 6:12–13.) The specification fares no better; it mentions “a limited amount of movement” (*id.* at 3:9–11), but nowhere does it describe how to measure an “amount” of the movement, or to determine whether that movement is “limited.”

**b. Plaintiff’s extrinsic evidence is unavailing.**

With no intrinsic evidence to rely on, the only evidence Plaintiff offers is unsupported, conclusory statements of Plaintiff’s expert. (Br. at 31 (citing Nair Decl. at ¶ 49).) Dr. Nair states that the plain and ordinary meaning of a “limited amount of movement” is “movement sufficient to accommodate variations identified in the ’4360 Patent at Column 2, Lines 5-14.” (Nair Decl. at ¶ 49.) But this interpretation is flawed for several reasons. (Lack Decl. at ¶¶ 71–78.)

First, it nearly goes without saying that incorporating a laundry list of “variations” from the specification into the definition of “limited amount of movement” cannot credibly be the “plain and ordinary” meaning of the term. (*See, e.g.*, Lack Decl. at ¶ 73.) And a POSITA would know that these variations are not the only causes of movement. (*Id.* at ¶ 75 (identifying other causes of movement, including forces of nature such as seismic forces, wind, deformation of the roof (such as under the weight of a snowfall), and thermal expansion/contraction of the roof).)

Second, even if these variations belong in the definition, they provide no “objective boundaries” to quantify the claimed “amount of movement.” *Dow*, 803 F.3d at 630. The “variations” listed at 2:5–14 are not measures or quantities, but overarching “reasons why” the patentee believes it is “difficult to establish two perfectly parallel raceways or tracks on which [a] roof will rest and travel.”<sup>13</sup> (’4360 Patent at 2:2–4; Lack Decl. at ¶ 76.) According to this definition, a limited amount of movement could be no movement at all, any movement short of derailing the roof, or anything in between.<sup>14</sup> (Lack Decl. at ¶ 76.)

Dr. Nair contends that the bearing in FIG. 4 of the Patent (which he describes as having a maximum [bearing] extension of “up to 1’-6” in either direction from the centered neutral position”) “should be adequate to accommodate [all] the variations listed in Column 2, Lines 5-14.” (Nair Decl. at ¶ 50.)<sup>15</sup> But he utterly fails to provide a credible reason *why* that is the case. Such a conclusory statement is useless here because, as the Federal Circuit has recognized, “an expert’s subjective understanding of a patent term is irrelevant.” *Gen. Protecht Grp., Inc. v. Int’l Trade Comm’n*, 619 F.3d 1303, 1310 (Fed. Cir. 2010) (citing *Howmedica Osteonics v. Wright Med. Tech.*, 540 F.3d 1337, 1347 and n.5 (Fed. Cir. 2008)). And absent “a complete statement of all opinions the witness will express **and the basis and reasons for them**,” Dr. Nair’s opinion is entitled to no weight in the court’s analysis. Fed. R. Civ. P. 26(a)(2)(B)(i) (emphasis added).

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<sup>13</sup> Crucially, Dr. Nair cites nothing to explain why a POSITA would believe these “reasons why” are in any way *related* to the claim term at issue.

<sup>14</sup> Immediately after listing the variations, the specification states that “[t]he inventors have determined that all of these variations can be accommodated”—not by the concept of a “limited amount of movement,” as Dr. Nair urges, but by “a properly designed and constructed lateral or horizontal release mechanism.” (’4360 Patent at 2:16-19.) But neither the specification nor Dr. Nair ever explain what “properly designed and constructed” would mean to a POSITA, or how it relates to the claim term “limited amount of movement.” (Lack Decl. at ¶ 74.)

<sup>15</sup> Again, nothing in Fig. 4 nor the description of Fig. 4 ties it in any way to the claim term under consideration.

(Lack Decl. at ¶ 77.) Moreover, the figure relied upon by Dr. Nair is not really FIG. 4 from the patent, but rather, a schematic drawing of a mechanism from the Arizona Cardinals Stadium, which was contained in the provisional patent application. (*Id.*) This measurement is not included in the actual patent, and one measurement, on one schematic, from one stadium, would not apply in every case. (*Id.*) A POSITA would know that using this particular measurement to define “limited movement” would not be appropriate for other applications of the invention. (*Id.*)

Turning to the extrinsic evidence, Plaintiff alleges that “limited amount of movement” is definite because the Examiner, during prosecution of the patent, did not reject the claims as indefinite because of this term. (Br. at 33.) But if that were the test, then no issued claim would *ever* be found indefinite, which is plainly not the case.

Plaintiff also cites three district court cases that purportedly construed claim terms containing the word “limited” to be “sufficiently definite” (Br. at 31–32). But these cases are readily distinguishable. In *Qcue, Inc. v. Digonex Technologies, Inc.*, No. A-12-CA-484-SS, 2013 WL 4784120, at \*3 (W.D. Tex. Sept. 5, 2013), *aff’d*, 575 Fed.Appx. 895 (Fed. Cir. 2014), the patent set forth several, specific examples of so-called “limited quantity” items, including: “limited editions of collectibles, seats in an entertainment or travel venue or rooms in an accommodation.” (U.S. Patent No. 8,112,303, attached hereto as Ex. 14, at 35:10–15.) Those several examples are the very guidance not found in the specification here. Likewise, in *Tinnus Enterprises, LLC v. Telebrands Corp.*, No. 6:16-CV-00033-RWS, 2016 WL 7230903 (E.D. Tex. Dec. 13, 2016), the district court found that the claim term “sufficiently limited to permit” was not indefinite because, unlike here, the intrinsic evidence, and the claims in particular, defined the term. *Id.* at \*4–5. And the court in *Avenue Innovations, Inc. v. E. Mishan & Sons, Inc.*, No. 1:16-CV-3086-KPF, 2018 WL 3127161 (S.D.N.Y. May 11, 2018), did not determine the claim

term “limited movements” was indefinite *because nobody asked it to*. Rather, the parties *stipulated* to the construction of the term. *Id.* at \*1. Plaintiff’s cited cases therefore provide no useful guidance to the Court here.

**vii. “Very small side load.”**

<b>Claim Term</b>	<b>Plaintiff’s Construction</b>	<b>Defendants’ Construction</b>
“very small side load” (claims 1, 14, 21)	plain and ordinary meaning: a side load that is a small fraction (e.g., 20%) of the vertical load	unable to be construed; indefinite

A POSITA would not understand the meaning of a “very small side load” given the intrinsic and extrinsic evidence. When a claim uses words of degree like “very small,” the Court should determine whether the “specification provides some standard for measuring that degree.” *Seattle Box Co.*, 731 F.2d at 826.

**a. The intrinsic evidence does not define “very small side load.”**

Here, the specification mentions “very small side-load” only once, and this passing reference is silent about the meaning of the term. (’4360 Patent at 5:46–51 (“This system is unique because it reduces the ratio of horizontal friction to vertical gravity, thus transmitting a *very small side-load* to the wheels and bearings for the main load supporting wheels on the main rails.”) (emphasis added).)

A review of patentee’s own statements about “very small side load” in the prosecution history sheds no more light on the term’s meaning. If anything, they underscore the term’s ambiguity. In the ’848 Application, for example, the patentee declared that the invention “is unique because it produces the ratio of horizontal friction to vertical gravity of *0.1 or less*, thus transmitting a very small side-load to the wheels and bearings for the main load supporting wheels on the main rails.” (’848 Application at 6–7 of 80 (emphasis added); Lack Decl., ¶ 82.).) But this ratio of “0.1 or less” was not later included in the identical sentence found in the present

specification, or in the claims, without any explanation why it was left out. (*Compare id.* with ’4360 Patent at 5:46–51.) However, even if this had been included in the specification, it does not explain the limitation as claimed. (Lack Decl., ¶ 82.) The ratio described is only one factor in determining side load. (*Id.*)

During the prosecution of the patent, the Applicants added “very small side load” to the claims to overcome a rejection in view of Doi, which Applicants distinguished on the basis that Doi’s side load was “large and significant.” (June 23, 2008 Amendment, attached hereto as Ex. 15, at 8 of 9.) But Applicants’ only articulated reason for characterizing Doi’s side load this way was that Doi’s roof included lateral reinforcement features:

Doi . . . requires significant lateral reinforcement because it generates ***a large and significant side load between the transport mechanism in the underlying structure.***

(*Id.* (emphasis added).) Thus, Applicants seemingly determined that Doi’s side load was “large and significant” without reference to *any* calculations involving horizontal or vertical loads, coefficients of friction, ratios, or other quantities. Rather, it was the absence of “additional lateral reinforcement” that formed the basis for Applicants’ characterization of Doi’s side load. (*Id.*) In any event, even if the prosecution history suggests what is “large and significant” in this context (Doi), it does not explain the difference between “small” and “very small.”

The intrinsic evidence’s failure to tie “very small” to any objective anchors leaves everyone in the dark about how to arrive at conclusions themselves. There are no objective boundaries for someone to determine at what point a “side load” becomes just “small,” or “medium,” or “large and significant” like in Doi. (Lack Decl. at ¶ 83.)

**b. Plaintiff's position is not supported.**

Plaintiff once again proposes a definition far from “plain and ordinary,” opting instead to define “very small side load” as “a small fraction (e.g., 20%) of the vertical load.” (Br. at 34.)<sup>16</sup> But this definition is just as problematic as the claim term. The phrase “the vertical load” has no antecedent basis in the claims or the specification so no one would know with certainty to what “the vertical load” refers, or how to calculate a “small fraction” of it. And a single, non-limiting example of “20%” will not help anyone understand what “very small” means, since Plaintiff’s definition might plausibly encompass any percentages ranging from zero to some unknown amount over 20%. Most glaringly perhaps, Plaintiff never explains why it deliberately dropped the word “very” before “small” in the proposed definition.

As discussed in Mr. Lack’s declaration, a sports-stadium retractable roof can weigh in the neighborhood of 150 to 375 tons, or 20 to 50 pounds per square foot. (Lack Decl. at ¶ 85.) Twenty percent of the vertical force of such a roof—even of one truss—is still a massive horizontal force, likely enough to bend the rail without significant additional support. (*Id.*) This is precisely the configuration the ’4360 Patent specifically tries to avoid. A POSITA would therefore not think 20% is a small load, let alone a “very” small load. (*Id.*)

Neither Plaintiff nor its expert proffer any evidence—whether in the everyday sense or in the retractable-roof-mechanization field—that “very small side load” is commonly understood to mean a small fraction of the vertical load, or *why* that would be the case. (Nair Decl. at ¶ 53.) When given during claim construction in particular, *ipse dixit* “amounts to the expert telling the court how to construe the claims, which infringes on the court’s role.” *See Sanders v. Mount*

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<sup>16</sup> The proposed definition lacks any concept of a “side load” as a POSITA would understand it. (Lack Decl. at ¶ 83.)

*Sinai Sch. of Med.*, 418 F. Supp. 2d 339, 341–42 (S.D.N.Y. 2005) (quoting *U.S. v. Russo*, 74 F.3d 1383, 1395 (2d Cir. 1996), *cert. denied*, 519 U.S. 927 (1996)) (“Testimony in the form of legal conclusions is improper because it ‘usurp[s] the roles of judge and jury.’”).<sup>17</sup> Accordingly, Dr. Nair’s opinion is entitled to little weight here.

Plaintiff argues that its proposed definition is supported by page 50 of the ’848 Application (Appendix C), which lists results from a prototype friction test. (Br. at 35–37; Nair Decl. at ¶ 52.) But the remainder of the document shows that the coefficient-of-friction results for different tests spanned various ranges beyond those shown in Appendix C, and often changed following modification of several factors, including the materials used in the testing. For example, the ’848 Application cites: a range from 14–20% in one example (’848 Application at 22 of 80); “19% or higher at the 145 kip load” in another (*id.*); “as low as 2% before climbing steadily to 11% within several minutes” (*id.*); “20%+ for loads between 40 and 80 kips when running dry” (*id.* at 23 of 80); and “below 10%” in another example (*id.* at 25 of 80). And of course, the patentee identified the 0.1 ratio earlier in the same document. (*Id.* at 6–7 of 80.) Indeed, the very test results relied upon by Dr. Nair include percentages that range from 2% up to 22%, with no indication what is the preferred percentage, or why Dr. Nair chose 20% rather than 22% or any other lesser percentage. The comments on the side of the page under “Notes” states that at test 19, with only 7%, there is a “slight stick-up” and a fluctuation in psi. (*Id.* at 51 of 80.) A POSITA would assume that 7% does not therefore work properly. (Lack Decl. at ¶ 88.)

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<sup>17</sup> Dr. Nair is not an expert in retractable-roof *mechanization* in any event. (Lack Decl. at ¶ 11.) In a patent case, an expert must at least be one of ordinary skill in the pertinent art. *See Sundance, Inc. v. DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1363–64 (Fed. Cir. 2008). “[I]t is an abuse of discretion to permit a witness to testify as an expert on the issues of [ ] invalidity unless that witness is qualified as an expert in the pertinent art.” *Id.* at 1363.

Why, then, Dr. Nair selected 20% given these test results, is not explained by Dr. Nair nor Plaintiff.

Plaintiff fails to explain *why* or *how* these test results about prototypes relate to the invention *as claimed*, particularly when the patentee did not include these ranges in any embodiment discussed in the specification. *Wi-LAN U.S.A, Inc. v. Apple Inc.*, 830 F.3d 1374, 1383–84 (Fed. Cir. 2016), *cert. denied*, 137 S.Ct. 1213, 197 L.Ed.2d 248 (2017) (rejecting patent owner’s (seeking broader claim construction) reliance on embodiment supposedly disclosed in provisional but not disclosed in issued specification). Indeed, nothing in these test results illuminates how the *claimed* invention in the issued patent should (or should not) work.

Plaintiff also argues that the ambiguity in “very small side load” is not insoluble because the Examiner cited certain references as disclosing the concept of a “very small side load” during the prosecution history. (Br. at 34–37.) But that contention is misleading. The Examiner cited, for example, U.S. Patent No. 6,851,227 to Schildge (attached hereto as Ex. 7), 4:51–65 as disclosing *nearly half the claim*, beginning with “maintaining the transport mechanism in a predetermined orientation” all the way through “said system transmits a very small side load to said single trolley rail with no need for additional lateral reinforcement, said lateral release system comprising a linear slide bearing.” (Oct. 6, 2008 Office Action at 4–5.) The Examiner did not particularly point out or comment on a disclosure of a “very small side load,” and even a cursory review of the reference shows there isn’t one. (*See* Ex. 7.) Accordingly, the fact that the Examiner did not reject the claims as indefinite is nothing but a red herring.

Plaintiff also cites two district court decisions, but again, these cases are distinguishable. (Br. at 34.) In *EcoServices, LLC v. Certified Aviation Services, LLC*, No. CV 16-01824-RSWL-SPx, 2017 WL 2783486 (C.D. Cal. May 18, 2017), the court found that “the patentee *define[d]*



‘small quantities’ as ‘finely-divided liquid’ that ‘is sprayed onto and through the object in quantities corresponding to 0.5–60 l/min.’” *Id.* at \*3. Likewise, in *Godo Kaisha IP Bridge 1 v. Broadcom Ltd.*, No. 2:16-CV-134-JRG-RSP, 2016 WL 6611490 (E.D. Tex. Nov. 9, 2016), the court found “small dielectric constant” was not indefinite because the specification specifically defined the dielectric film of the invention “as preferably having a dielectric constant of 3.9 or less,” and further provided several example embodiments where the constant was specified and fell within the specification’s definition. *Id.* at \*19–20. The ’4360 Patent’s specification here, in contrast to these two cases, provides no such numerical definition of “very small” or even “small.” Nor does it describe any examples or embodiments that identify a “very small side load.”

**viii. “No need for additional lateral reinforcement.”**

<b>Claim Term</b>	<b>Plaintiff’s Construction</b>	<b>Defendants’ Construction</b>
“no need for additional lateral reinforcement” (claims 1, 14, 21)	plain and ordinary meaning	no additional lateral reinforcement

**a. The prosecution history supports Defendants’ construction.**

In response to the rejection by the Examiner in the first Office Action, based on the Doi reference, Applicants amended each independent claim to include the limitation “said system transmits a very small side load to said single trolley rail with no need for additional lateral reinforcement.” (Ex. 15 at 3–6 of 9.) To support that amendment, Applicants stated that they “amended all three independent claims to clearly recite that the transport mechanism in Applicant’s invention includes a single trolley rail on the underlying structure with no additional rail . . . .” (*Id.* at 8 of 9.)

Doi provides lateral reinforcement using two side rails to support its lateral release mechanism. Applicants distinguished over Doi by arguing the claimed invention had *no*

additional rail, *i.e.*, no additional lateral reinforcement. (*Id.*) *But* the specification in the '4360 Patent never discusses "additional lateral reinforcement," or the "need" or lack of "need" for it. Prior to the amendment, the claims were broad enough to cover a system with additional reinforcement or support for the transport mechanism. But Applicants expressly amended the claim to distinguish Doi by contending the prior art had additional rails and the disclosed invention had "no additional rail." (*Id.* at 3–6, 8 of 9.) Therefore, that is how the clause "no need for additional lateral reinforcement" should be construed. If, on the other hand, the clause is construed as Plaintiff contends, it is vague and indefinite, as there is no description as to when the additional rail would or would not be needed. (Lack Decl. at ¶¶ 89–93.)

**b. Plaintiff again mistakenly relies on extrinsic evidence.**

Here again, Plaintiff's sole support for its construction is Dr. Nair's declaration about what he "understand[s]." (Nair Decl. at ¶ 55.) He is not a POSITA (*see infra* n.17) and has no experience in movable-stadium-roof mechanization. (*Id.*) Dr. Nair's discussion of the '4360 Patent and the need for additional reinforcement in it is thus mere speculation. In fact, his conclusion is contradicted by the '4360 patent itself (which he cropped from his citation in paragraph 55 of his declaration), which states "[t]he *only* way to correct this with a four-bar linkage is to extend the length of the parallel bars . . . ." ('4360 Patent at 2:46–48 (emphasis added).) Dr. Nair's personal opinion, which is unsupported by the '4360 Patent itself, is therefore simply not reliable.

**IV. CONCLUSION.**

In light of the foregoing, Defendants respectfully request that this Court adopt the constructions proposed by Defendants for each of the disputed terms.

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Respectfully submitted,

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**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that on October 12, 2018, a copy of the foregoing document was filed via this Court's electronic filing system and thereby served upon all counsel of record.

Date: October 12, 2018

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